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REPORT FROM THE PRESIDENT

Another conference is behind us. Those of you who attended were pleased to find their activities unhampered by the Halifax police strike. Those who did not attend will be able to read the papers which were presented at the conference printed in the Bulletin. In 1982 our annual conference will be in Ottawa during the week of August 16th. I hope that many of you will come to these meetings and that you will also plan to stay on the following week for the IFLA conference in Montreal. Although registration for IFLA is set at US \$125, this will include all social events, receptions, and tours during the week. Inexpensive accommodation is available by registering early and asking for "student residences" (US \$16.00 per night).

The Board has not met since the Halifax Conference but is planning to meet November 5 and 6 in Ottawa. The main item on the agenda for that meeting will be the A.C.M.L. response to the Ruggle's Report. This report, entitled "Evolution of Cartographic Associations in Canada," was commissioned by the National Commission for Cartography. It was deemed to be necessary to allow a reassessment of the coordinating role of the NCC vis-à-vis the various Canadian cartographic groups. As cartography is the subject specialty of map librarians, map archivists, and map curators, this report is of vital interest to A.C.M.L. The Board's response to this report will be circulated to the membership for comment.

Lorraine Dubreuil
A.C.M.L. President

EDITORIAL COMMENT

I would like to welcome Merrily Aubrey to the Bulletin staff. Merrily, who is with the Provincial Archives of Alberta, Cartography Collection, has kindly agreed to serve as regional editor for Alberta. My thanks to Ronald Whistance-Smith, the previous regional editor for this same province.

It may be of some interest to the membership to know that this issue of the Bulletin was compiled on a word processor. In the past the Bulletin has always been typed manually in order to generate camera-ready copy for the printing process. In order to solve certain logistical and technical difficulties it was decided that number 40 would be assembled and stored in a word processor (a Micom, in Graphic Services at the University of Waterloo). While this has solved some of our production problems--for example, all typing can now be right-justified; also typing can begin with the first item submitted--it has created others. Word processors are "quirky." For no apparent reason the system will omit paragraphs, scramble sentences, and repeat words. We very much hope we can resolve some of these difficulties for number 41 and that we can get the Bulletin back into production schedule.

Richard Hugh Pinnell
Editor, A.C.M.L. Bulletin

SASKATCHEWAN-BY-THE-SEA
 THE TOPOGRAPHIC WORK OF ALEXANDER MURRAY
 IN NEWFOUNDLAND

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*Paper presented at the
 15th Annual A.C.M.L.
 Conference, Halifax, 1981.*

The Royal Bank of Canada, like most of the Canadian chartered banks, publishes a monthly Letter which occasionally deals with themes of historical and geographical significance. In a recent issue, for example, it devoted its columns to the topic of "The Unknown Explorers," the intent being to commemorate the early stalwarts of the Geological Survey of Canada who did so much to open up this enormous country. As the article points out:

Every schoolboy knows of Champlain and Hudson, but few Canadians of any age have even heard of these much later explorers who toiled and bled in the trackless solitude of the wilderness to give Canada a head start on the goal to economic viability and scientific prowess.¹

It goes on to discuss in acceptable detail the lives and careers of five of the early geologists whose work "opened up" Canada to and for Canadians, giving pride of place to the first Director of the G.S.C., Sir William Logan.

Logan was born in Montreal of Scottish parents in 1798. In 1814 he left Montreal for school in Edinburgh and a professional career in Britain. After twenty-seven years away he returned to Canada, a regular 19th century polymath, and in the next year, 1842, he was appointed to the position of Director of the new Geological Survey of Canada. He took over the "boss's chair" as the Royal Bank Letter so inelegantly puts it; but, as the Letter goes on to say:

There was little staff to boss, however. With only one assistant, Logan was responsible not only for geological exploration but also for topographical surveying and for nurturing the collection that would one day become Canada's superb National Museum.²

For twenty-seven years, from 1842 to 1869, Logan directed the Geological Survey with flair and distinction despite periodic fiscal crises. When he retired at the age of seventy he had established it as a contemporary model for the exploration of earth science.³

The concern of this paper however is not with the Geological Survey of Canada as such, but with the influence that it has on the developing geological and more particularly the geographical knowledge of Newfoundland. It may be remembered that when Logan was setting up the Canadian Survey, he initiated the work "with only one assistant." The Royal Bank Letter does not see fit to mention the name of the "one assistant" but he was, of course, the subject of this paper, Alexander Murray.

.....

The sources for our knowledge of Alexander Murray's life are all too few considering the importance of the positions he held both in pre-Confederation Canada and in Newfoundland--his annual reports, some of his business letters, two short biographies, and a general autobiographical account.⁴ All of these sources will be used in an attempt to give some idea of the significance of his work in Newfoundland, but first let us turn to his chief biographer, Robert Bell, one of the five G.S.C. geologists mentioned in the Royal Bank Letter. Bell's brief biographical sketch was not published until 1892, some eight years after Murray's death, and is not now widely available; it remains however the fullest account of Murray's career by a contemporary. He makes the general point that:

Murray was remarkable for having, as it were, duplicated his life-history, or to have enjoyed two separate spans of life of about the same duration, in each of which his career was very similar in nearly all respects. He repeated in Newfoundland the same kind of preliminary geological and topographical work he had done in Canada, and having married and brought up a family in the latter province, he became a widower, and, on going to Newfoundland, married again and reared a second family of children. So completely separate were his two spheres that one is apt to think of him as he would of two distinct individuals, and his biography must necessarily branch into two separate parts.⁵

One of the aims of this paper will be to link Murray's two separate careers in pre-Confederation Canada and in Newfoundland, and to try to show how, in fact, he had one consistent Canadian career. But first let us sketch-in some background to his formative years.

Alexander Murray was a Scot, born in circumstances which, we may presume, were comfortable if not substantial at Dollerie House in the charming Perthshire town of Crieff, on June 2nd, 1810.⁶ His family occupied a recognized position in the landed classes and minor aristocracy and two of the three Murray brothers were destined in the traditional manner of the gentry of that period for the armed services. William, Alexander's younger brother, joined the army, and was killed during the Indian Mutiny of 1857. Alexander, the middle son, was sent shortly before his fourteenth birthday to the Royal Naval College at Portsmouth, being gazetted as midshipman in 1824 and passing his examinations for lieutenant in 1830. He left the Navy in 1835 because, as a young man of spirit and ambition, he saw little prospect of advancement in a service which for half a century had proved its point and its power and would, in the foreseeable future, be resting on its laurels.

For all that, his period of naval service was not without incident and adventure, the most celebrated of which was his participation in the last battle of any substance between sailing ships, the Battle of Navarino of 1827. In this encounter a combined British, French, and Russian fleet under the command of the English vice-admiral Codrington destroyed a Turkish and Egyptian fleet, ostensibly in the cause of Greek independence. Midshipman Murray on the ten-gun brig Philomel displayed some degree of bravery--he was wounded in the battle and decorated for his part in the engagement.

The Battle of Navarino may seem far removed from Murray's terrestrial endeavours in Canada and Newfoundland, but it may be used as a touchstone for the background against which Murray was nurtured. Alexander Murray's life and experience bridged a remarkable period, but his character must have been shaped by those early naval years; the expression "the days of wooden ships and iron men" may be a cliché, but nonetheless it embodies considerable elements of the truth--Murray was preeminently a tough, resolute individual and there is no doubt that much of his character was moulded by his naval career.

Another characteristic which may be a legacy of both his naval training and family tradition⁷ is that of his dedication to science and the public service. With his energy, resolution, and ability he could well have become, in an emerging imperial world, a captain of industry. But he never sought to enrich himself, and that he preferred to devote himself to scientific pursuits on a modest income can only enhance his reputation; though he was not alone in this, he was an early exponent of dedicated and disinterested public service. For all that, he was not to be without his enemies and detractors.

The vigour and robustness which were so much a part of Murray's nature were expressed not only in his actions but also in his words. Most of those who were privileged to work with him for any length of time, particularly in the field, remarked upon this fact. J. P. Howley, for fifteen years his assistant and, on Murray's retirement, his distinguished successor, must have known him as well as any man; in a letter written in 1892 to Bell, congratulating him on his biographical sketch of Murray, he said:

I certainly never came across a man who possessed such a fund of amusing, though nearly always inelegant, sayings and anecdotes, as he did. I do not often repeat them, but many of them I can never forget.⁸

T. C. Weston, a Canadian palaeontologist called in by Murray in 1874 to investigate the stratigraphy of the eastern Avalon and who discovered the now-famous Cambrian fossils in Manuels River, wrote that he was "a kind-hearted man, ever ready to assist those in distress," but he was also "noted for fits of temper, when he would use the strongest of swear-words."⁹

The amusing anecdotes told about Murray's profanities were so numerous that it would be a pity to omit some mention of them. Two of the less risqué stories will serve as illustrations of his ebullience.

When the palaeontologist Weston had completed his field work in Conception Bay area he returned to St. John's to catch the boat back to Canada. While waiting for the steamer, he resolved to pass the time usefully by helping Murray in the Geological Museum:

I spent the...time...in putting some of the cases in the small museum--which consisted of several rooms in Mr. Murray's house--in order and also in classifying the books in his library, during which work I found four Church of England prayer books. When I asked Murray how I would class them, he was very angry that anyone should have "put their bibles in his library." He flung them across the room and said some of his choice swear-words. The next morning I went to the cathedral church; Mr. Murray was there deeply engaged in the devotions of the day.¹⁰

The second story is related by Howley in his letter of 1892 to Bell:

During Mr. Murray's explorations about Lake Huron, he had in his employ an old Indian chief, who could not speak a word of English, except a few words taught him by Mr. M. On one occasion, while Mr. M. and Sir Wm. were engaged in the Museum at Montreal, explaining the collection to a lot of ladies and gentlemen, and Mr. M. was on his very best behaviour, in the midst of a bevy of ladies, the very essence of politeness itself, who should suddenly put in an appearance but his friend Chief Crooked Stick. Seeing his old employer, he stepped up to him with a broad grin, and extended a paw, utterly oblivious of the presence of the fair sex, and addressed him thus: "Oh you old g_____d_____ son of a b_____, how you do." Murray was like one shot with a rifle bullet; but Sir Wm., who overheard it all, nearly went into convulsions from laughter. Murray strenuously denied the story, and always appeared rather vexed at its recital, but Mr. Fletcher just as strenuously asserted that it was quite true, and that he could bring positive proof of its accuracy.¹¹

These sidelights on Murray's genial but explosive character should not be allowed to detract from the narrative of his career. Murray left the Navy in 1835, then emigrated to Canada in 1837, having in the meantime married a Miss Fanny Judkins of Liverpool, England. His destination was what we now know as Southern Ontario, where he settled in Blandford Township approximately nine miles from Woodstock. It is unclear from the circumstances of his initiation into Canadian frontier life whether he was homesteading--breaking the land from the bush--or whether he acquired the land already broken. At one point he wrote that the land was "purchased" so he may have bought land from a homesteader who had cleared the bush and moved on. Blandford Township had been surveyed in 1828 so the latter course is conceivable. But land alienation policies in Upper Canada were complex and varied and it is difficult to know what condition his farm was in when he took over. In any event he arrived in Canada as a frontier farmer.

Some insights on Murray's political philosophy may be gleaned from his description of his arrival in Canada and his subsequent actions. He landed first in Montreal in early July 1837, the year of the Mackenzie-Papineau rebellion. His curt note on that event tells us a good deal about two aspects of his political philosophy. He had just arrived in Canada, he said, "when in that same year, 1837, the unnatural and detestable rebellion broke out, which threw Canada back in the scale of advancement nearly twenty years."¹²

With a characteristically strong belief that, sometimes, actions speak louder than words he settled into Blandford Township, and immediately joined the Canadian militia. Shortly after Christmas in 1837, as befits a formal naval officer, he took part in a cutting-out expedition which captured and burnt the Caroline, one of Mackenzie's vessels which was supplying a rebel camp on Navy Island, two miles upstream from Niagara Falls.

From Murray's remarks and actions we may reasonably infer that he was a loyalist and a conservative--but he was neither doctrinaire nor an ideologue. What exercised him about the "detestable rebellion" was that progress was thwarted. Murray, like many men of his time, considered that progress was a natural goal--and change, the agent of progress, was profoundly to be wished for. Much later in his life, towards the end of his career in Newfoundland, he spoke these characteristic words:

While thus advocating change--although I frankly admit my general opinions to be of the pronounced conservative stamp--I contend that ultra-conservatism, or refusing to keep pace with the march of the age, is only less disastrous to the well-being of a people than reckless innovation, leading to anarchy and ruin.¹³

Murray was not amongst those who would find anything contradictory in the modern notion and designation of "progressive conservatism."

Murray's movements over the next few years are not altogether clear. The birth of his first child, a daughter, at Woodstock in October 1838 strongly suggests that he spent a least a year or two getting established in Southern Ontario. But then the birth of a son in Scotland in October 1840 implies that Murray was in Britain by this time. We know that by 1841 he was working for the Geological Survey of Britain, to which he had been introduced by William Logan, soon to be the Director of the new Canadian Geological Survey.¹⁴ With this brief apprenticeship completed, he was taken on as Logan's assistant and returned to Canada in April 1843 where, as he put it, "the real business of my life began."¹⁵

For the next twenty years Murray vigorously assisted Logan in the exploration and mapping of the geology of what was then known as Canada. Each summer he would spend a good part of his time on field work, exploring the rocks from Northern Ontario to the Gaspé. A portion of each winter would be spent at the office of the Survey in Montreal completing his reports and maps. In between times, he would return to his growing family in Woodstock. In the winter of 1861 his wife died following an accident--his youngest child was then nearly twenty and had married and we may conjecture that Murray, at fifty-one years, was both ready and able to break his ties with his Woodstock home and look further afield.

At about this time a member of the Newfoundland government, the Honourable James Rogerson, was recommended by the British Consul General in New York to Sir William Logan. Rogerson was interested in exploring the possibilities of mineral development in Newfoundland, and the G.S.C. was entering one of its periodic fiscal crises in which the very future of the Survey was being questioned. Logan, with an eye to the professional future of his highly trained assistant, nominated Murray as the first Director of what was to become the Geological Survey of Newfoundland. In May 1864, Murray left Montreal to take up his new position.

Alexander Murray's career as a geologist, both in Canada and Newfoundland, has been well appraised by both his peers and successors. In this paper, the emphasis will therefore be on his geographical and topographical work in Newfoundland in the context of the political, social, and economic movements of the time.

The remit of the geological surveyor in nineteenth century Canada and Newfoundland was qualitatively different from that of today. In a real sense, as the Royal Bank Letter on the Geological Survey of Canada points out, they were explorers, the discoverers of terrae incognitae. Their scientific curiosity and developed powers of analysis and observation, coupled with their keen belief in progress (as defined previously in Murray's case) led them to seek many kinds of possibilities for development. The delineation of mineral deposits may have been a primary goal but they were also keenly aware that they were looking for timber resources, communication routes, and agricultural potential.

Although this observation may be commonplace today it was not so readily apparent to the St. John's establishment into which Murray moved. In one of his early official reports, that of 1865, he offered "a few remarks regarding the legitimate nature of a Geological Survey, a subject on which I fear there is a very great misapprehension on the part of many in this province."¹⁶ These "misapprehensions" were soon to cause Murray a good deal of trouble.

For the time being, however, he proceeded with the work of the geological survey, only to find himself hamstrung by the lack of an adequate topographical base on which to record his observations. This was not altogether surprising as something of the kind had been experienced in Canada. In his former position, however, land survey had been much more advanced than in Newfoundland where in fact it was almost nonexistent. Consequently, the progress of the G.S.C. had been much faster. In Newfoundland, however, Murray found that he had to begin almost from scratch—a geological survey could not proceed without a topographic map "at least having some pretensions to accuracy...and when such cannot be procured, the only alternative is to construct one."¹⁷ In his reconnaissance surveys this was precisely what he had to do:

In making my exploration across the island, I considered it a very necessary matter to make a topographical survey of the country passed through, as it soon became very obvious the maps already published gave but the rudest idea of its physical geography.¹⁸

Murray was not the first person in Newfoundland to perceive the need for a survey. In 1858, a few years after the institution of responsible government, a Mr. James Hogan had written to the House of Assembly in connection with a survey which, it was rumoured, the government would initiate. Hogan's cogent arguments for a comprehensive topographic and geographic survey, and the offer of his services to undertake the task, were not taken up by the Colonial government. But it is tempting to see in his scheme the seeds which germinated six years later in the appointment of Murray as Director of the Newfoundland Geological Survey. At all events, Murray effectively discharged most of the functions described by Hogan.¹⁹

The first five years of Murray's tenure as Director of the Geological Survey were marked by wide-ranging investigations of the island. He examined in more or less detail the country between Hall's Bay and St. George's Bay; the Codroy Valley; the Humber Valley; the surroundings of Conception, Placentia and St. Mary's Bays; and parts of the Great Northern Peninsula. But the disinterested pursuit of scientific knowledge and development possibilities which were certainly the goals of Murray's investigations could not be kept separate from the social and political struggles of the day. The questions raised by Murray's activities, and the clashes they engendered, reflected the anti-confederate temper of Newfoundland at that time.

The situation is not difficult to understand. Murray came from Canada to Newfoundland in 1864, a little before the time of the Charlottetown Conference. Newfoundland turned her face away from the subsequent confederation, although clear provision was made in the new Canadian constitution for the entry of Newfoundland when the conditions appeared to both sides to be right. And although Newfoundland's prevalent anti-Canadianism was not universal, it was sufficiently widespread that there were many people who looked on Murray as an intrusive and unwelcome Canadian element in Newfoundland affairs. Charges were levelled at the Geological Survey--and therefore at Murray--which had to be answered, and this resulted in an investigation by a Select Committee of the House of Assembly under the chairmanship of Mr. R. J. Pinsent.

One of the advantages of this procedure for us is that the formal deliberations of the Select Committee, which met in 1869, enable us to see rather clearly what the Geological Survey had attained and how it was viewed by Murray's contemporaries. And it is gratifying to report that Murray emerged with flying colours from what may be thought of as a rather unedifying ordeal, being exhorted to continue, if not expand, the good work. It is, nevertheless, instructive to review briefly the two main queries made of Murray's work. First, it was suggested that he was hardly fulfilling the functions of a geological survey by concentrating on making topographic maps. The second accusation was more profound and, in the climate of the times, potentially more damaging: it was whispered that he may have used his position to advance his own pecuniary interests and, more horrible, to give privileged information in advance to foreigners, particularly Canadians. The Select Committee's charge on this pointedly expressed the contemporary mood:

An impression exists with some that from the course of proceeding pursued by you, persons abroad, particularly in Canada, receive preferential information, and are placed in a more favoured position than the people of this colony.²⁰

It is not necessary to explore here the evidence or the reasoning behind the Select Committee's findings. Suffice it to say that Murray was exonerated on any charges of professional or political impropriety; his scientific work was properly praised as exemplary; and his methods of conducting the survey were recognized as requiring considerable personal exertion. The Select Committee made its report in glowing terms:

In conclusion, your Committee need hardly observe how essential it is to maintain, and, if it could be done, how desirable, to extend geological operations in this Island, for the purpose of leading enterprise into channels hitherto but little explored, and thus creating new sources of industry.²¹

Two points which emerge from the Committee's report are worth additional comment. First, the Committee strongly supported Murray's continued efforts at topographic surveys. Paragraph 11 of the report said:

The Committee can not too highly recommend Mr. Murray's plan for blocking off lands either for mineral, lumbering, or agricultural purposes; and without further remark on this head they would specially direct attention to the evidence on this point....This plan will tend to save expensive surveys, to prevent contests, and to utilize the public lands in the best possible way.²²

The significance of this recommendation is that it gave an unusual impetus to the process of land survey in the next two decades; Murray, in turn, placed his own distinctly Canadian stamp on the process.

A second and related point is that the evidence does suggest the continuation of powerful Canadian influences on Murray's thinking and associations. He candidly admitted his dependence on the facilities of the Canadian Geological Survey in these terms:

Another matter I beg leave to remark upon, in reference to any imaginary collusion with Canada or Canadians I may have had, is that possibly such unwarrantable conclusions are founded on the fact that I am compelled of necessity to place my collections in the hands of Sir William Logan for description and analysis, and to get his aid in lithographing or printing even the smallest illustration required for my reports. In the first place, then, I have simply to state that Sir W. E. Logan is Director General of the Geological Survey of Canada, and therefore my scientific chief;²³....Therefore, strictly and regularly speaking, all my reports ought to pass through the hands of Sir William Logan before they are submitted to the public at all.²⁴

An independent witness, the Reverend Moses Harvey, indirectly made the same point. Speaking of the quality of Murray's survey, he said, "Sir W. Logan's supervision of it is a sufficient guarantee that the survey is conducted on the most approved scientific principles."²⁵ And finally, the Committee itself concluded that it was economically and professionally appropriate that Murray should continue to associate with and depend upon the Geological Survey of Canada. The report was emphatic on this point:

A complete geological department...would be quite beyond our means, and probably undesirable in any case, as the survey of the country has the benefit, indirect as it is, of the Canadian staff, which embraces the services of palaeontologists...mineralogists...and chemists...and of other scientific officers, with an excellent museum in connection with the whole; and it is by these means that final completion is given to the labours and researches, the discoveries and reports of Mr. Murray, with regard to the geology of this country.²⁶

Clearly Murray has made a considerable impression and was free to go on with the work he had begun so well.

Murray's influence on topographic and geographical survey in Newfoundland began to show results in 1874 when, in examining the drainage basins of the Gander and Exploits Rivers, he was confirmed in his earlier impressions of great lumbering and agricultural potential. It may be that it was at this time that he first formally proposed a township survey which he described in the following terms:

A systematic plan for subdividing the land, the surface of which is laid off in blocks of 6 miles square, each containing an area of 36 square miles. Of these, suppose 20 to be reclaimable, there would be a total of 720 square miles.²⁷

He went on to suggest that each six-mile by six-mile block should be:

Cut up into single square miles, and then again each mile divided into six lots or equal areas of 100 acres, leaving a balance of 40 acres as a reserve for local roads in every mile.²⁸

With his enthusiasm now aroused, Murray went on to calculate the impact of such a scheme on population and settlement:

With respect to settlement, each township would contain 216 lots of 100 acres. If we suppose 100 acres to be capable of maintaining five individuals, each township would support a population of 1080 souls. A fair proportional share of stock on each of the said lots might be, say, one pair of horses and one yoke of oxen for draft purposes, two milch cows and ten sheep. This would give an aggregate of 432 horses, 432 oxen, 432 cows, and 2160 sheep to each township, exclusive of stallions, bulls, rams, etc. which to a great extent might be used in common. With the almost unrivalled capabilities the country possesses for grass growing, breeding and rearing of stock can hardly fail to become one of the great future industries of the province.²⁹

To give some substance to his ideas, Murray commenced the work of township survey in 1875 by having a meridian line cut south from Salt Island in Gander Bay. This line, depicted in Figure 1, ran south and west in steps to conform to the direction of the Gander River valley, and ultimately, in 1882, was tied in to a base line (49°N) and principal meridian (56°W) which were to be the reference lines for a complete township survey of the colony.

Murray's notion of a system of 36-square-mile townships, each containing 216 lots of 100 acres, was obviously derived from his Canadian experience. But he was not proposing a simple unconsidered transplant--his proposal was a hybrid, made up of modest lots (100 acres) in a one-mile by one-mile sectional system. In this proposal he was combining, in a novel manner, elements of the oldest and newest survey systems operating in Upper Canada, and it is interesting to conjecture that he considered this more suitable for Newfoundland conditions.³⁰

Murray's enthusiasm for land settlement, and the survey which was necessary to precede such settlement, was probably behind an act of the Legislature passed two years previously, in 1873, and titled in short the Homestead Act. The aims of the Homestead Act were succinctly stated in its preamble:

Whereas it is necessary, for the purpose of encouraging Agriculture and the more speedy settlement of the Wilderness or unoccupied Lands of this Colony, to secure possession of such Lands to Settlers and Owners by a more secure tenure than they can be now held.³¹

It should be noted here that this was not a homestead act in the conventionally accepted sense of the American homestead law. It provided, for example, for holdings of only ten acres, little more than

small-holdings in practice. But it was an earnest of the colony's intention to diversify its economic base; and it presaged a more substantial legislative involvement in land settlement and economic development, all of which, it will be suggested, derived from Murray's concept of proper (i.e. regular) land units.

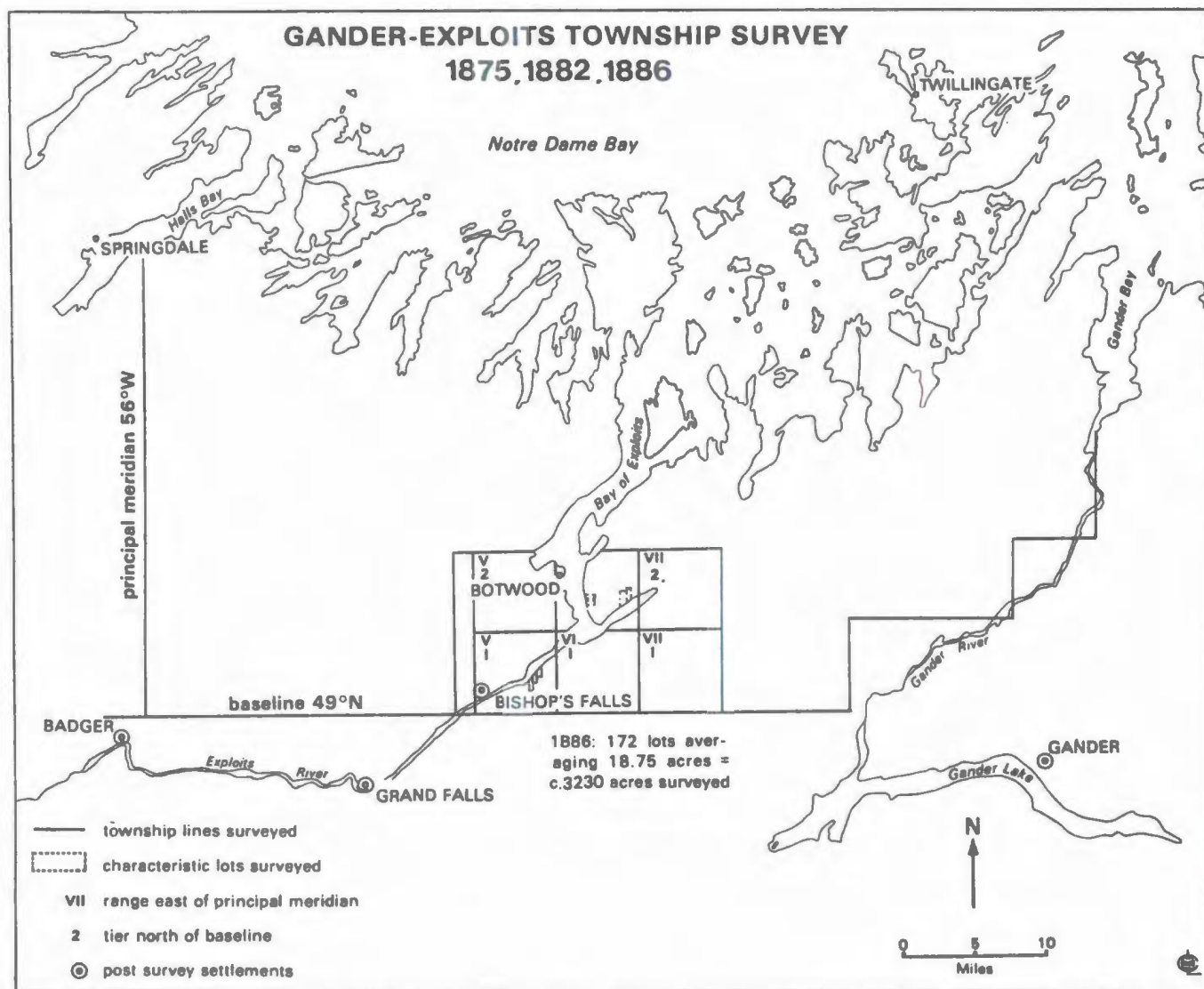


Figure 1

In 1875, for example, an act was passed to "make provision respecting the sale and management of Timber on Crown Lands."³² Amongst other things this act provided that "no License shall be granted for a larger tract than six miles long and six miles wide"³³—one of the dimensions recommended by Murray in his 1874 report.

In 1880, in an intensification and refinement of the methods by which Crown Lands should be disposed of, the Legislature passed another Crown Lands Act.³⁴ This was a rather complex act which attempted to cater to the needs of agriculture, timber, and mining. For this discussion we need only remark that for the first time there was legislative provision for the alienation and settlement of considerable blocks of land—not fewer than 250 acres and not more than 1,000 were offered to licensees who would settle families upon that land and clear and cultivate it at stated rates.

Legislation dealing with the alienation of land in Newfoundland was not complete, but before we turn to the most astonishing and radical of the lands acts, it is interesting to look back at the fortunes of Alexander Murray and the Geological Survey. The scientific investigations had continued through the 1870s but the bureaucratic context in which the survey worked was changing. The principal change was that in 1879 the government decreed that the Geological Survey should be subordinate to the Office of the Surveyor General--in effect, the status and priority accorded to the Geological Survey were superseded. Henceforth, the land survey, which paradoxically Murray had argued to be so important for successful and profitable settlement, was to be the most important arm of this sector of the public service.

There exists in the Newfoundland Archives a poignant letter, dated March 14th 1879, which Murray, at the Prime Minister's suggestion, wrote to the Surveyor-General laying out the basis of his understanding of the new, subordinate position he was about to occupy. Even here, fifteen years after he had left the Geological Survey of Canada, he wistfully harked back to the system in which he developed as an earth scientist: "I have been guided in what I have to propose in a great measure by the system pursued in Canada."³⁵ And in what is the last of his letters I have found, we get some idea of how the scientific objectives of Murray's department had been subverted. The letter, dated June 14th 1882, was written from the Surveyor General's Office and addressed to the Colonial Secretary. It runs in part:

I am becoming extremely anxious to learn in what way the Government wishes the services of the survey under my direction to be engaged during the ensuing season, which is now rapidly advancing...unless it is absolutely necessary for the good of the public service, that our time should be occupied in Land Surveying, pure and simple, my wish is to go on with geological details, as was so admirably done last year...by Mr. Howley; and were it left to my own discretion, I should send him this summer to the Great Northern Peninsula...portions of which may prove of much mineral importance.³⁶

It was not, of course, left to Murray's discretion. In the summer of 1882, his assistant, Howley, was sent to pick up the work of land survey and subdivision which Murray had begun so enthusiastically some eight years previously in the Exploits and Gander Basins. Figure 1 shows what was accomplished in 1882 and 1886.

The concept of blocking off townships in the six mile by six mile format, which was introduced by Murray and clearly borrowed by him from his mainland experience, had as yet no legislative warranty. It was, however, with modifications, being implemented. Perhaps it was seen as a convenient and proper vehicle for land subdivision but it was recognised that there must be flexibility in the system. In 1883, for example, Howley was sent to the Codroy Valley and was free to use his discretion in fitting the regular form of survey to the dictates of the country:

It was at first intended to adopt the American township system of laying off the lands on true bearings, in blocks of thirty-six square miles each...On arriving at Codroy, however, and making a cursory survey of the general features of the country, it was found that so much of the land was already occupied, while the upper and unsettled part of the valley was so narrow, the system could not be carried out with any advantage either to the country or to the settlers. It was deemed advisable, therefore, to abandon the idea so far as the Codroy Valley was concerned.³⁷

Howley's 1883 survey is shown in the southerly portions of the lands depicted in Figure 2.

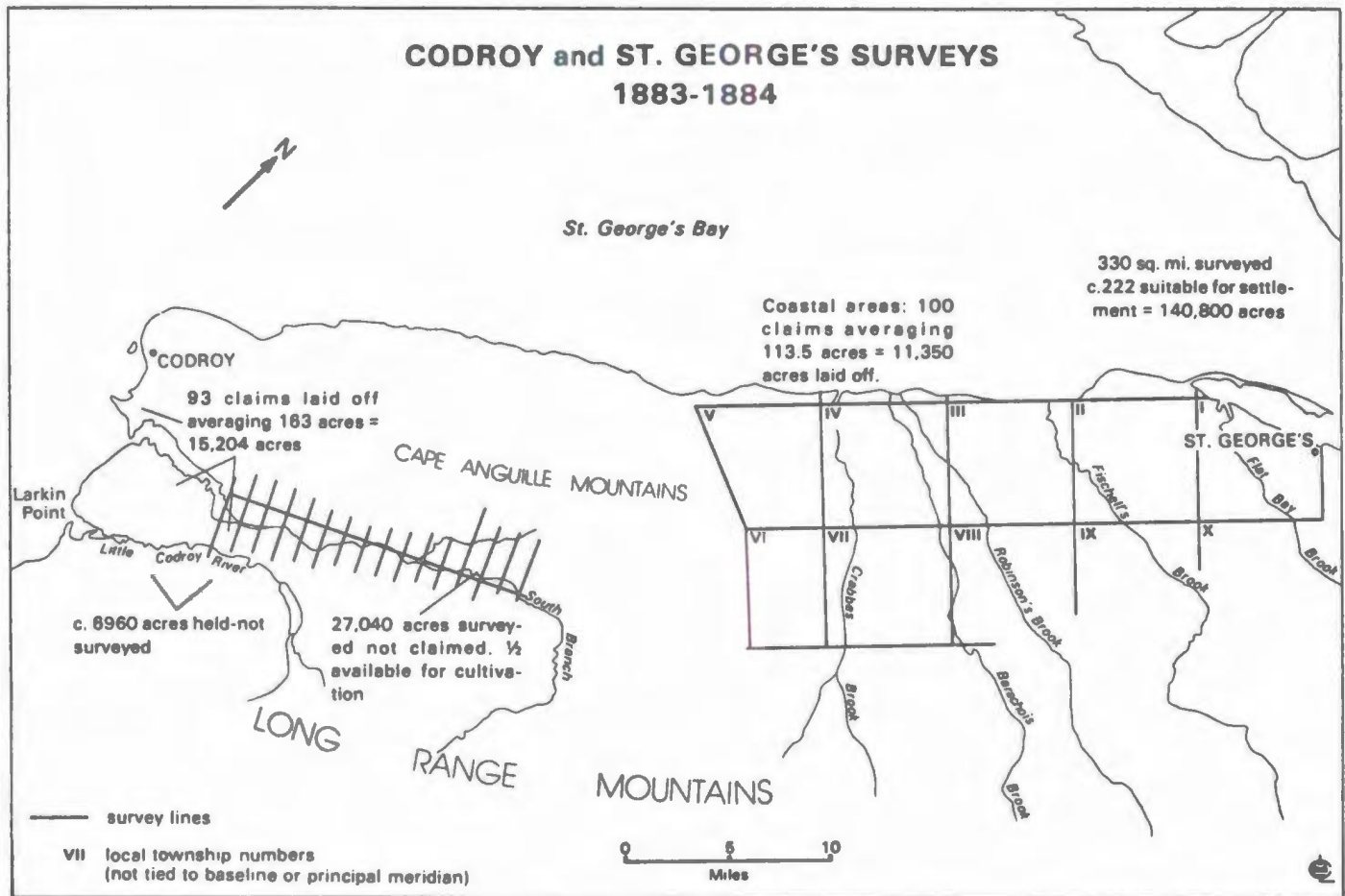


Figure 2

In 1883, Murray retired and returned to his native Scotland, but the work of land subdivision he had initiated, by argument and example, was reaching a climax. And by the following summer the legislative sanction for transforming the face of Newfoundland was in place--it was the Crown Lands Act of 1884. Briefly, this sweeping act provided for a complete survey of lands on the six-mile by six-mile system, with the provision for homesteading under a system of sections of 640 acres, half sections, quarter sections, half quarter sections and finally, quarter quarter sections of forty acres.³⁸ The new act was an unashamed borrowing of an American system, which had itself become a Canadian system. Perhaps it was not expedient at the time so to admit, but from the safety of nearly thirty years later, the then Prime Minister was able to say of this Act, in the 1912 session of the House of Assembly, that it was "almost a verbatim copy, I think, of the Canadian Act."³⁹

The year after surveying the Codroy Valley on a modified rectangular survey, Howley returned to St. George's Bay, and with the 1884 Act as his warranty, laid off the townships⁴⁰ shown in the northerly parts of the lands depicted in Figure 2.

Even before the Act had been passed, and before Murray had retired from the scene, the Canadian plan was being implemented in an area which may, with hindsight, appear to be a most astounding location, the north and central Avalon Peninsula. Beginning in 1883, the surveyors of the Surveyor General's Office laid off approximately 500 square miles of townships and sections⁴¹ shown in Figure 3. Then, following the completion of the Avalon Survey, the parties moved in 1887 to lay off the land between Bonavista and Trinity Bays;⁴² the results of their work are depicted in Figure 4.

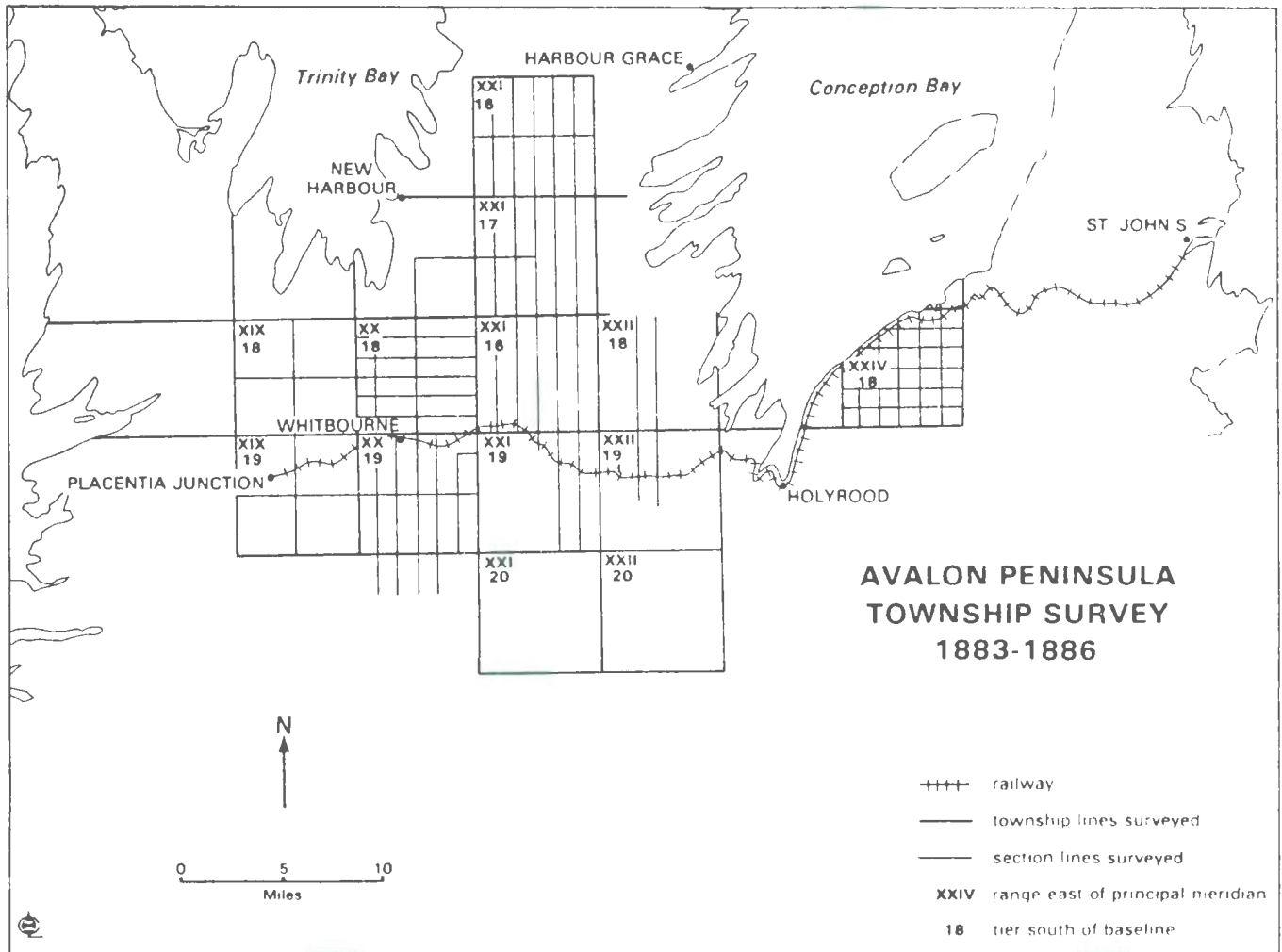


Figure 3

Anybody familiar with present-day Newfoundland may well have some difficulty envisaging a Terra Novan landscape laid off in regular and bountiful townships and sections. But the activities described here are not imaginary; they were fully entered in the public record. The pertinent question remains, however--if all this happened, if all these townships were surveyed, what happened to them? In what way did they affect the evolution of landscape, settlement, and economy?

The brief answer to this is that, in all probability, the township survey influenced the evolving geography of Newfoundland very little. This may be illustrated by one example--Howley's description of Township 19, Range XX, immediately south of Whitbourne in the Avalon Peninsula (Figure 3). This is how he described it in 1885:

This is in all probability the finest Township of the entire series blocked off. The proportion of good land and fine timber will, I believe, exceed any of the others. It is intersected by the Railway from East to West, and by Hodgewater and Big Barren Pond branches of the Rocky River from North to South. Harbour Grace Junction (now Whitbourne) is situated in the 33rd section, while South from the Junction several picturesque lakes, all closely connected, spread out over a considerable area, reaching into the heart of the Township. Again on the Eastern side the waters of Big Barren Pond, with several smaller lakes, extend down to its Southern boundary line, thus rendering almost all parts of it easy of access by water. Of the thirty-six square mile (sections) six are covered by water, and six more by marshes and barrens leaving at least twenty-four square miles or 15,360 square acres available for agriculture. So far from being a hindrance, the ponds are in every respect an advantage, affording as they do facilities for penetrating almost every Section within the Township. The soil here is frequently of excellent quality, and the timber, especially the yellow birch and fir is of fine growth.⁴³

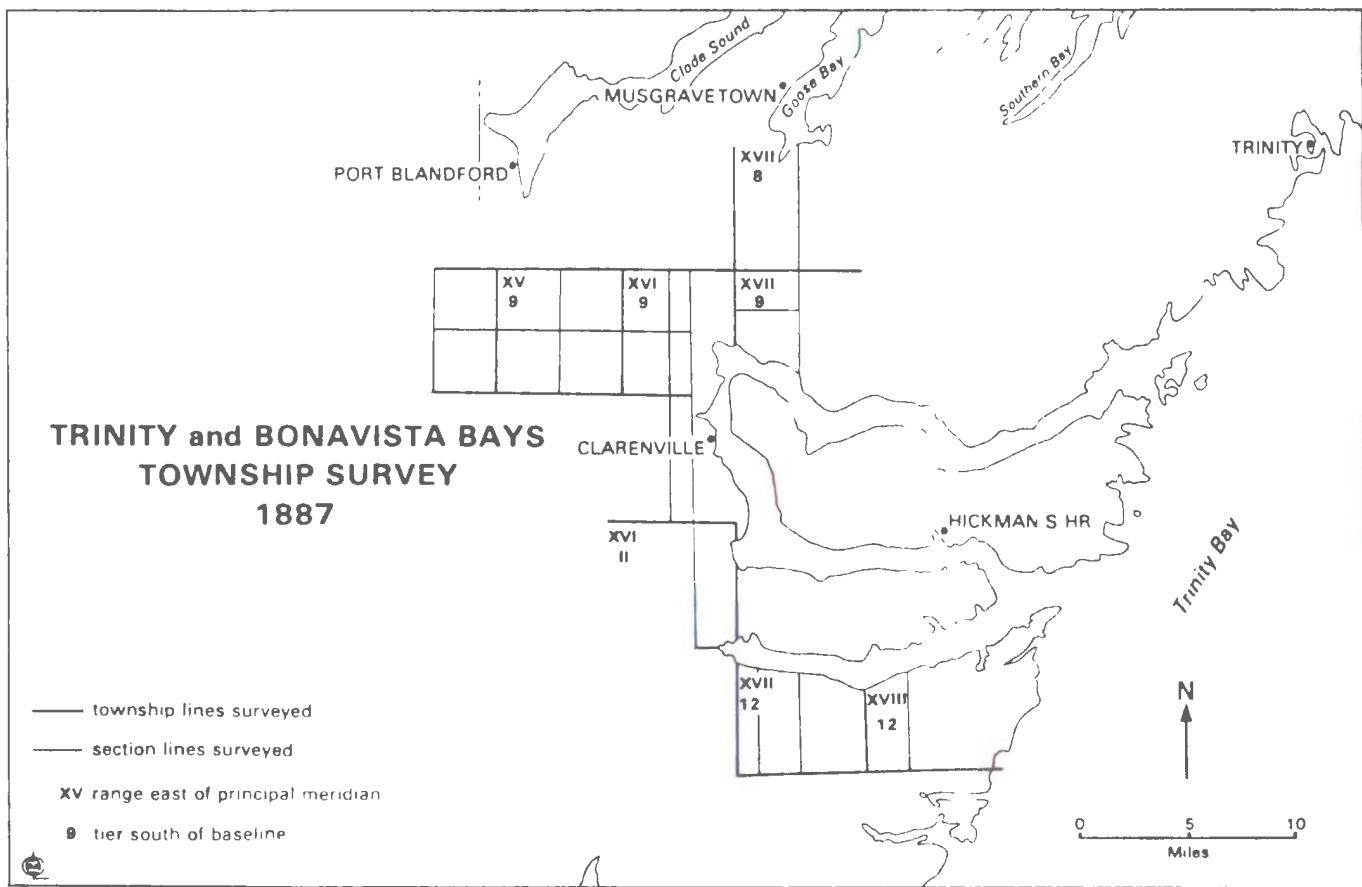


Figure 4

What happened to this promising township? In agricultural terms, and apart from the growth of the railway town of Whitbourne, very little. Yet fifty years after the survey, when the Commission of Government was initiating land settlements in the 1930s, the first settlement, Markland, was placed in the middle of Township 19, Range XX. Over thirty years later, Hancock completed a thesis⁴⁴ on the Commission of Government land settlements--he researched intensively the origins of each settlement, but, significantly, when asked directly whether Markland had been located where it was because of the earlier and very favourable survey, he replied that he could find no information indicating that the founders of Markland had even heard of the township survey.⁴⁵ Clearly, the survey faded quickly from people's memories, and it was not vigorously prosecuted after the 1880s.

Another index of the survey's success or lack of it may be derived from the records of Crown Land grants taken out according to the rubrics of the 1884 Act. Prima facie, we would expect any grants of 640, 320, 160, 80 or 40 acres to have been made in terms of the 1884 Act on the Canadian model.

A cursory examination of the grants from 1884 to 1900 reveals relatively few of these particular sizes--perhaps three or four percent of the grants made. The greatest numbers of this type of quarter section grants were in the Codroy Valley and St. George's areas. But this line of inquiry is admittedly still open. Most of the grants made were in irregular amounts, in acres, or roods and perches, but this may have reflected the fragmented nature of the country surveyed, as much as an ignoring of the 1884 Act. Thus, this remains a promising line of inquiry.

But whatever we find from such inquiries, the fact remains that the townships survey did not turn Newfoundland into Saskatchewan-by-the-Sea, or even a Nova Scotia-in-Terra Nova. Agriculture did not become a substantial sector of the economy of Newfoundland which remains not only the least agricultural of Canada's provinces, but also the province in which the land surface is least affected by human organization in the shape of land survey and control.⁴⁶

At the same time, Alexander Murray, to do him justice, never perceived Newfoundland as a potential agricultural paradise. But if his Canadian township system had been more fully implemented, and the lands taken up, we might, for example, have seen in the Gander and Exploits Basins, in St. George's, and possibly in the Trinity-Bonavista Peninsula area a wide distribution of owner-occupiers of stock farms combined with wood lots, each of possibly 100 to 200 acres, and each furnishing a good living for, in the aggregate, a large rural population. Such a system is not new, or bizarre, and variants have worked with moderate success in many other places, of which New Brunswick and Scandinavia are only two examples. Instead, the opportunity was missed, and the development of the interior of Newfoundland awaited the arrival of corporate capital in the late 19th and early 20th centuries. Clearly the impact of this kind of incursion on settlement and socio-economic development was substantially different from that envisioned by Murray.

.....

But all this is a might-have-been; to conclude this discussion, it is more useful to return to the subject of Alexander Murray and attempt to place his accomplishments in the context of his time, and to look beyond Murray the celebrated geologist to assess his influence on and in Newfoundland.

While we must never discount Murray's contributions to science, it may be suggested that he played a more profound role than that of scientist. Murray was essentially a Canadian nationalist, much in the mold of Sir John A. Macdonald. Born in Scotland, he died in Scotland--but in the nineteenth century this could be no less than a prerequisite for presenting a man as a true and consistent Canadian figure. All the evidence of his career in Newfoundland, the standards to which he worked, the contacts he maintained, the systems he deployed, both in his professional work and his public stances show him to be a Canadian through and through.⁴⁷ This did not make him any less an enthusiastic Newfoundland booster--on the contrary, he believed fervently in the future of the island. In 1877, he spoke of his disinterested aspirations for Newfoundland:

With these convictions strong upon me, and keenly feeling conscious of utter disinterestedness, as I own neither an acre of land nor mining share in the Colony, I here once more express my belief that the elements of wealth and greatness abound in this island.⁴⁸

He was nevertheless acutely aware of factions in local society which could frustrate his aspirations for change and progress in Newfoundland. Perhaps he was thinking of those in the local establishment who were exponents of the "ultra-conservatism" he deplored. He warned his listeners in a public lecture that:

Unless these opinions and efforts (towards progress) are warmly supported, there will always be danger of relapsing into the old state of mesmeric indifference which has kept this land at least a century behind the rest of the civilized world. Knowledge is power, union is strength; the light of the former is glimmering brightly; and it is to be hoped that the latter will prevail for the common weal.⁴⁹

It is interesting to conjecture what he meant by these latter words: "Union is strength...and it is to be hoped that the latter will prevail for the common weal." Setting his words in the context of his life and his time, it is reasonable to infer that Murray, not surprisingly, was a confederate who worked to implement Canadian systems in an environment not always receptive of them. This was such a persistent feature of his career in Newfoundland that we may ask whether he may not fairly lay claim to the title of the first Newfoundland Canadian.

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4. R. Bell, "Alexander Murray F.G.S., F.R.S.C., C.M.G.," The Canadian Record of Science, V, 2(1892): 77-96; R.D. Hughes, "Alexander Murray (1810-84)," Geological Association of Canada, Proceedings, 23 (1971): 1-4; Murray to Glover C.O. 194: 193, 5 February 1877, pp. 74-87.
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7. His father's cousin, for example, had been Secretary of State for the colonies: Murray to Glover (1877), p. 75.
8. Howley to Bell, 4th May 1892, Newfoundland Archives 557.18 H84 NR Vault.
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21. Ibid., p. 11.
22. Ibid., pp. 39-40.
23. Present author's emphasis.
24. Report of the Select Committee..., pp. 41-42.
25. Ibid., p. 60.
26. Ibid., p. 11.
27. A. Murray, "Report on the Geology of Newfoundland for 1874," Collected Reports 1864-80, p. 359.
28. Ibid., p. 360.
29. Ibid., p. 363.

30. See, for example, Economic Atlas of Ontario, Toronto, 1969, plate 99.
31. An Act to Establish a Homestead Law in this Colony, 36th Victoria, Cap. 7.
32. An Act...Timber on Crown Lands, 38th Victoria, Cap. 3.
33. Ibid., para. II.
34. An Act Respecting Crown Lands, 43rd Victoria, Cap. 3.
35. Murray to Donnelly, 14th March 1879, Newfoundland Archives GN 2/22A 1879.
36. Murray to Shea, 14th June 1882, Newfoundland Archives GN 2/22A 1882-3.
37. J.P. Howley, Report of the Survey of Lands in the Codroy Valley, 1883.
38. An Act to Amend and Consolidate the Several Acts Respecting the Crown Lands of Newfoundland, 47th Victoria, Cap. 2.
39. Proceedings of the Newfoundland House of Assembly, 1912, p. 550.
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41. J.H.A. 1884, pp. 514-519; 1885, pp. 399-403; 1886, pp. 645-651; 1887, pp. 713-720. Also, J. P. Howley, Report on Blocking off Lands in the Peninsula of Avalon, St. John's, 1885, 8 pp.
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43. J.P. Howley, Report on Blocking off Lands, pp. 4-5.
44. W.G. Handcock, "The Origin and Development of Commission of Government Land Settlements in Newfoundland." Unpublished M.A. Thesis, Department of Geography, Memorial University, 1970.
45. W.G. Handcock, personal communication, 4th December 1979.
46. This agricultural weakness must not be overstated. Agricultural improvements in the early 20th century increased the volume of production considerably. In 1921, for example, agriculture contributed 27% of Gross National Product. A more usual proportion would be roughly 20%. See D. Alexander, "Economic Growth in the Atlantic Region, 1880 to 1940," Acadiensis (Autumn 1978): 47-76.
47. Interestingly enough, despite the weight of anti-confederate feeling during his Newfoundland career, Murray frequently (unconsciously?) referred to Newfoundland as a "Province" in his private writings, even when he had been in Newfoundland many years. See Murray to Glover (1877), pp. 79-81.

48. A. Murray, "Roads: a popular lecture....," p. 14.
49. Ibid., p. 15.

* * *

ATLAS PRESERVATION

The following comment was submitted in a letter to the editor of Library Scene, an American periodical. It is reproduced below along with the editor's reply.

Dear Sir:

Your excellent publication has just been added to the list of journals routed to me for various degrees of reading, checking, and inspecting. Not having checked the back file, I don't know if you ever have published anything on the problems of atlas preservation. (Even if you have, it's worth reviewing again.)

The preservation of single sheet maps is fairly well in hand; atlases present the problem. Few binders seem to want to (or be able to, at a reasonable cost) handle the rebinding (or, alternately, the boxing) of atlases. Here at the Map Collection, we have several cartons of atlas sheets, deacidified and encapsulated, waiting for some sort of binding.

In your March 1981 issue, you list a handy reference of services offered by Certified Library Binders. Unfortunately, there is no listing for atlas binding. In my more pessimistic moods, I begin to think that there is no binding answer and that restored atlas sheets should be boxed or put in map drawers. Perhaps an article in a future issue might be in order to examine the preservation problems (and possible solutions) for atlases.

J.B. Post
Map Librarian
Free Library of Philadelphia

Editor's Note: Due to space limitations and the wide variety of services offered by the 55 Certified Library Binders in the U.S. and Canada, it was impossible to include every type of service in the reference chart. I'm glad you wrote to The Library Scene about your specific need which was not included in the listings. A list of those Certified Library Binders who handle the rebinding (or boxing) of atlases will be sent to you. Anyone else who also would like this list may write to The Library Scene, Suit 633, 50 Congress Street, Boston Massachusetts 02109.

* * *

A LOOK AT THE MAP LIBRARY
AT THE UNIVERSITY OF WESTERN ONTARIO

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Department of Geography
University of Western Ontario*

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University of Western Ontario
Alumni Gazette. Taken from an
original text published in the
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One of the most attractive rooms on the campus is located on the ground floor of the Social Science Centre. To many, the contents of the room are even more attractive--it is full of maps, atlases, charts, globes, and air photographs which make up Western's Map Library.

Figure 1: A view of the U.W.O. Department of Geography Map Library

The small collection of teaching maps held by the Department of Geography twenty years ago has now developed into what the World Directory of Map Collections described in 1977 as "the major regional centre for cartographic material." But the simple statistics that the sheet maps total 175,000, that the number of atlases exceeds 1,300 and that there are 20,000 items such as relief maps, models, and globes disguise the fact that they include several special collections. There is a complete set of some 10,000 Canadian topographical maps of all scales--a set held by only a few dozen libraries in Canada, as is the largest single group of maps in the library made up of the 40,000 topographic maps of the United States.

One of only five complete sets of navigational charts for Canada and the U.S.A. is here and also the only complete collection in Canada of three-dimensional maps. The weather maps form one of the most extensive collections of such material in Canada and by no means least, and perhaps not so surprising, the library has probably the most complete collection of maps of London, Ontario. A special effort has been made, and is continuing, to develop "time series" for Canadian maps.

These are the different editions of standard map sheets which have been published over time such as the successive editions of the "3-mile" map series of the Canadian West and the "1-mile" map series of topographic maps for Ontario.

Yet over ninety percent of these items are obtained without direct cost to the University. The better the reputation of an institution, the more likely it is for such a library to be approved as a "depository." Large producers of maps such as Energy, Mines and Resources, Canada, agree to deliver and deposit their products free of charge provided they are assured that the maps and charts will be properly housed and made available to all users. In addition, the Map Library has formal arrangements with other university libraries and archives in Canada and abroad for the exchange of duplicate and surplus materials. Finally, there is a constant stream of gifts from students, faculty, alumni, and the general public. These often include valuable and rare maps and atlases.

As a result, although the Map Library is primarily concerned with contemporary maps, some old maps are also obtained. Among the oldest is a woodcut of the city of Cuzco, Peru, dated 1574. There are fairly numerous examples of 18th and 19th century maps which illustrate changes in cartographic style and the development of geographical concepts over time. Adding to the diversity of the holdings is the expansion of topics covered by modern maps. In addition to traditional subjects such as topographic features, maps today may show subterranean waters, seasonal movements of caribou herds, ethnic origins of the population of an urban area, or the geological features of a planet resulting from exploration by a space satellite. The list of such items, called "thematic maps" is almost endless. Their proliferation, especially since World War II, makes the map collection useful to many disciplines besides geography.

Thus Western's Map Collection is an ideal cartological laboratory and instructional unit, which has also become a research unit as well as a regional reference centre. Twenty percent of the users are from outside the University and include businessmen, government officials, and other researchers. The general public makes use of the Map Library for a variety of reasons. The vacationer consults maps of far away places, sailing charts, maps of ski trails or canoe routes, or maps for fishing and hunting. For businessmen maps present graphically information about population or economic situations. Increasingly individuals searching for their "roots" find maps a useful source of genealogical information in tracing their family histories.

Elementary and secondary school teachers wishing to see new cartographical resources are constant visitors to the Map Library. Their students use map library materials for assignments and their schools also benefit from the duplicate and superseded maps which the library donates to school boards in the area of distribution. A total of 26,000 such maps have been given to local schools since 1976.



Figure 2: General Layout of the U.W.O. Map Library

None of these achievements could have come about were it not for the skills and diplomacy of the Map Curator, Serge Sauer, and his devoted staff. During the winter term they deal with some 4,000 people a month. They also set up special exhibitions, the loan of which is frequently requested by other universities. The display cases which line the corridor leading to the library are constantly updated with current world events, whether it be the war zone between Iraq and Iran or skiing events in Austria. The Map Library staff have produced University Map Libraries in Canada and Federal, Provincial and Municipal Map Libraries in Canada (published by the

Association of Canadian Map Libraries)--the only such publications in the world of map librarianship. The staff are also at the heart of another project sponsored by the Canadian Association of Map Libraries, aimed at preserving and popularizing cartographic Canadiana by reproducing relatively rare, historic Canadian maps. Seventy such maps have already appeared making it the largest series of reproductions of Canadian maps ever produced. As a result it is now relatively easy for everyone in Canada to own copies of the maps drawn by explorers such as Samuel Hearne or Alexander Mackenzie or to see the route maps produced to guide prospectors to the gold fields of the Yukon.

Figure 3: One of the displays produced in the Department of Geography showed the evolution of Canada and the United States of America on map stamps. It was also loaned to other Ontario universities. This photo was taken by the Hamilton Spectator while the exhibit was at McMaster University.

The reputation of the library has long outgrown the confines of the campus. Its visitors and correspondents literally come from all quarters of the globe and its advice has been sought by the most venerable and well-endowed institutions.

Come and see the interesting world of maps for yourself.



MAP LIBRARY GUEST BOOK

DATE:	NAME:	CITY, COUNTRY, OR INSTITUTION:
June 27 th 81	MIRAILLE R. [unclear]	UNIVERSITY OF OTTAWA MAP LIBRARY
July 8, 1981	ROBERT COLE	STANTON, ILL. (READER'S DIGEST)
9 July 81	C. J. [unclear]	St. Thomas (CHLO)
10 July 81	Carl A. [unclear]	UNIVERSITY OF ROCHESTER ROCHESTER NY 14627
11 July 81	John [unclear]	map Librarian, University of Toronto Lib.
11.9.81	PETER JEDICKE	LONDON - ONTARIO
21-7-81	Armand [unclear]	Spadina St. The Manor Ont Can.
21-7-81	[unclear]	[unclear] Ont.
"	[unclear]	[unclear] Ontario
23-07-81	[unclear]	Los Angeles CA
"	[unclear]	Uppsala, Sweden, Ser. Zoologica
24-07-81	[unclear]	C.G.H.W. Paris, France
24.07.81	Keith [unclear]	Melbourne, Australia
24.07.81	Evelyn Heic	Helmshagen Germany
24.07.81	Donal [unclear]	Dillingham-Dillingham Boundary
24.07.81	[unclear]	Copier Ont. Can.
24.07.81	Kenneth H. Olsen	Los Alamos NM USA
24.07.81	Mustafa Erdik	ANKARA, TURKEY
24.07.81	DAVID DENHAM	CANBERRA, AUSTRALIA, Bureau of Mails
28.07.81	Wang, Shun, Yu	THE PEOPLE'S REPUBLIC OF CHINA Peking
28.7.81	Patricia [unclear]	London U.K.
28.7.81	D. Al. [unclear]	UWO
29.7.81	S. A. [unclear]	of SAUCEO, Kamchatka, USSR
2.8.81	S. [unclear]	Nottingham, England
2.8.81	Marie [unclear]	Krasno, Poland
10.8.81	Gillian [unclear]	Witney, Oxon, England
10.8.81	[unclear]	New Oxon Collig, Witney, England
11.8.81	Bruno [unclear]	Düsseldorf Germany
13.8.81	Carly [unclear]	Ambleby, [unclear] [unclear]
13.8.81	[unclear]	Four Forks, [unclear] [unclear]
17.8.81	Attilio [unclear]	Włocławek, [unclear]
17.8.81	Japan [unclear]	Shiga, [unclear]
17.8.81	Kislovak [unclear]	Toronto Canada
20.8.81	Marie [unclear]	Toronto
21.8.81	Anne [unclear]	St. James Ontario
21.8.81	Sumala [unclear]	St. Thomas Ontario (19)
21.8.81	Margaret [unclear]	London Ontario
25.8.81	Winifred Watson	Edinburgh, SCOTLAND
31.08.81	Georg Yu	R.R.#1, [unclear], Ont.

Figure 4: A page from the U.W.O. Map Library's Guest Book

ASSOCIATION OF CANADIAN MAP LIBRARIES
15TH ANNUAL CONFERENCEROUND TABLE: BIBLIOGRAPHIC CONTROL FOR CARTOGRAPHIC MATERIALS

A. PAST AND FUTURE: TV NETWORKS AND COMPUTER DATABASES

*Pierre Lépine**Responsable, Département des cartes et plans**Bibliothèque nationale du Québec**Montréal, Québec*

In the early 1950s, very few had television sets. I remember that, in Montreal, there was only one network, on one channel; it was a CBC bilingual channel.

When my father bought our first television set, in 1957 or 1958, there were two TV networks and three channels available. At that time, some clever people foresaw that one day it would be possible to choose between an even greater number of programs on more channels. I would never have imagined that just twenty years later, my own children would be watching colour TV, that they would have a choice of tuning any one of the thirty channels available in my community, through a cable system called Vidéotron.

Nowadays, very few people have computer terminals in their homes, but it is expected that within ten to twenty years most families will have, in their homes, computer terminals matched with their TV sets. Even though I can hardly imagine a computer terminal in my living room, I know that I am already contributing to databases that will be accessible on some of the networks that will be available by then.

Cartographic materials in databases

Bibliographic databases are among the databases which are already being considered for inclusion in these expected networks of the future. A periodical abstract called RADAR (Répertoire analytique d'articles de revues), one of the Bibliothèque nationale du Québec's databases, is often cited as an example of a database that will be available. The Bibliothèque nationale du Québec is also producing MARC tapes containing bibliographic data for books; starting soon, our MARC tapes will include bibliographic data for cartographic materials. How can this be achieved? By cataloguing.

Is there a great difference between cataloguing a map for the internal needs of the institution and cataloguing a map in a way that the information can be input to a database that can be useful to others also? Not really. The only condition is to adhere to certain standards; these standards now exist. Following standards necessitates knowledge of the standards, and discipline. In the long run, working with standards is much easier than working with in-house rules, and one feels much safer, or secure, when following standards.

About standards for map cataloguing

At the Bibliothèque nationale, we use working sheets with standardized areas and codes; we use the same working sheets for book cataloguing and for map cataloguing. All the elements of the description are divided into a certain number of areas, according to the MARC format, in conformity with AACR. The working sheets have a supplementary area that is designed for cartographic

materials (255). AACR, then, is the basic standard that has to be followed. A manual of Interpretation of AACR 2 for cartographic materials will be available by the end of 1981 and will give guidance in problem areas that one may encounter. I had the chance to experiment with the draft of the manual, and the modifications that were brought to that draft, at the last meeting of the AACR-CM in Washington, are most valuable, and will encourage the cataloguing of maps in a more uniform manner.

To input into a database, one must code the data by means of addresses in order to guide the computer. These addresses, or fields and subfields, have standard numbers (digits and/or letters) which are easy to memorize--comparable to the ease with which a book librarian memorizes the main classes of the Dewey classification. When using the MARC format, there is no language barrier; I know this from personal experience, having discussed map cataloguing with map librarians in the U.S. who are familiar with the format.

The first area, or field, that appears on the working sheet is the area for the main entry. Main entries follow AACR. Since the National Library of Canada also follows AACR for its main entries one needs only to check the authority files of the NLC to find the proper form for the main entry without having to conduct more elaborate research. The authority files of the NLC are available on microfiche, and unless one has facilities for on-line cataloguing, it is suggested these files be purchased in fiche format.

The other areas that follow are the usual areas determined by AACR. Coding, or providing designated numbers, is necessary when entering the data in a computerized database. At the Bibliothèque nationale, coding was once done by the staff of the Coordonation de l'Informatique, but now, cataloguers are responsible for coding, and it is obvious that this is a normal and simple task for the cataloguer, since he is the one who knows best how the data should be given to the computer for proper retrieval afterwards.

Example: 245 1 or 0 Title added entry: yes (1) or no (0)
740 Other title added entry.

Once the main entry has been established and the bibliographic description is complete it usually is necessary to determine such access points as geographical headings and/or subject headings. Here, also, it is recommended that one follow some kind of standard. For subject headings, one thinks of the Library of Congress Subject Headings. Since the LCSH cannot be used in a French context, three major institutions in Québec are contributing to the development of the Répertoire de vedettes-matières de Laval, which is a translation and an adaptation of the LCSH. At the Bibliothèque nationale, I am now contributing to the Répertoire by adding subject headings, even though it might be only by adding the word "cartes" after subject headings that have already been used for books.

Geographical names in subject headings is a particular field that should be of greater interest to map librarians or map archivists than to book librarians. It is not clear, either in AACR 2 or in LCSH, how geographical names should be treated; the Library of Congress, in its Cataloguing Service Bulletin, nos. 11 and 12, has suggested a certain number of practices. This is a field in which map librarians can get actively involved and help to establish rules and even standards. In fact, I am a member of a Comité des noms géographiques which is trying to implement rules for geographical names.

About standards for map cataloguing

At the Bibliothèque nationale, we use working sheets with standardized areas and codes; we use the same working sheets for book cataloguing and for map cataloguing. All the elements of the description are divided into a certain number of areas, according to the MARC format, in conformity with AACR. The working sheets have a supplementary area that is designed for cartographic materials (255). AACR, then, is the basic standard that has to be followed. A manual of interpretation of AACR 2 for cartographic materials will be available by the end of 1981 and will give guidance in problem areas that one may encounter. I had the chance to experiment with the draft of the manual, and the modifications that were brought to that draft, at the last meeting of the AACC-CM in Washington, are most valuable, and will encourage the cataloguing of maps in a more uniform manner.

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Map cataloguing and the institution's support

I do not know of any institution which has started automating its cataloguing with its map department. I am fortunate, at the Bibliothèque nationale du Québec, to have the technical support to allow me to input the first non-book bibliographic information into our database.

Map libraries, it is obvious, have to comply with the systems and the standards in their own institutions. In Québec, map libraries are using different kinds of systems. At the Université du Québec, the system is called BADADUQ (Banque de données automatisées des universités du Québec) and at least one map library out of the five map libraries of the Université du Québec uses the system for on-line cataloguing and on-line retrieval. BADADUQ I had a format which was incompatible with the MARC format; BADADUQ 2, which is being implemented this month, is based on the mini-MARC format. Even though it does not have the 255 area for mathematical data, it seems that it will be possible to generate something equivalent from another field.

In Québec, though, the older universities and the Bibliothèque nationale du Québec, have gone to TELECAT-UNICAT. These institutions are studying the possibility of having a cooperative system for Québec, to be called RIBLIN (Réseau informatisé des bibliothèques/Library information network).

At the Archives nationales du Québec, the system that is being implemented right now is called SAPHIR (Systèmes Archives, Publications, Histoire, Inventaire et Recherches). SAPHIR is designed to hold groups, but not individual items. It is estimated that SAPHIR will handle the 6,000 groups in the Archives nationales, but it was decided not to attempt to record the 100,000 individual items only for the needs of the Archives, and no attempt was made at this stage to follow bibliographic standards or formats. The groups in the map collections, in the Archives, will be recorded this summer, including the sixty groups of the map collection in the Montreal regional branch.

Conclusion

We are now in the 1980s. We now have standards that did not exist in the 1970s, standards that did not exist when most of us started working in our map libraries or map archives. I believe the time has come to put aside some of our in-house methods that worked just fine but that will not be useful in the 1990s. In the 1990s, many will expect to have access to bibliographic data from their local libraries and archives through terminals in their own home. Even though, some day, it may be technically feasible to see a map on their TV set, this will not be possible as long as there is no bibliographic control to firstly pick it up in a database and make it accessible to them, just as the library card functioned in the old days.

* * *

DOCUMENTS CARTOGRAPHIQUES
(BROCHER ICI SUR LE BORDEREAU)

0 9 8			TYPE DE DOC.	27
ZONE FIXE DE DESCRIPTION MATERIELLE - 007				
1 2 3 4 5	1. IGGD 2. ISGD 3. ASPECT ORIGINAL		4. COULEUR 5. SUPPORT MATERIEL	
ELEMENTS DE LONGUEUR FIXE-008				
CODE DE PUBLICATION & DATES				
2 3 4				
PAYS	5	IND. P.O.	10	LANG.
			17	NOT.MOD.
				18
S. CAT.	19	RELIEF	55	PROJECTION
				56
MERIDIEN	57	TEXTE	58	INDEX
			59	CARACT.FORMAT
				60
ZONE FIXE DE DESCRIPTION MATERIELLE (DETAIL) - 009				
1 2 3 4 5 6 7 8 9 10 11 12 13				
1 2 3 4 5 6 7 8 9 10				
1. DIMENSION	2. IMAGE	3. SUPPORT	4. PRODUCTION	5. REPRODUCTION
6. COMP. GEODESIQUE	7. MODE DE PUBLICATION	8. ALTITUDE DU CAPTEUR	9. ASSIETTE DU CAPTEUR	10. BANDES SPECTRALES
14 15 16 17 18 19 20 21 22 23 24 25 26 27 28				
11 12 13 14 15 16 17 18 19 20				
11. QUALITE DE L'IMAGE	12. NUAGES	13. RESOLUTION AU SOL	14. CARACT. DE L'IMAGE	15. FORME DU DOCUMENT
16. TECHNIQUE DE PRESENT.	17. PLATEFORME	18. CATEG. DE SATELLITE	19. DESIG. DE SATELLITE	20. TECHNIQUE D'ENREGISTREMENT

BNQ 7.1a (annexe)

Figure 1: The fixed-field coding sheet used at the Bibliothèque nationale du Québec. This is, of course, only a section of the complete sheet.

B. REPORT ON THE SECOND MEETING OF THE ANGLO-AMERICAN CATALOGUING COMMITTEE
FOR CARTOGRAPHIC MATERIALS

*Joan Winearls
Map Librarian
John P. Roberts Library
University of Toronto
Toronto, Ontario*

The second meeting of the Anglo-American Cataloguing Committee for Cartographic Materials (AACC-CM) was held at the Library of Congress, Washington, from April 27 to May 1, 1981. The aim of this meeting was to come to an agreement on the final text for the manual "Cartographic materials: A manual of interpretation for AACR 2" which hopefully will be published before the end of this year. Since the last meeting in October 1979 the committee's work has been conducted by correspondence and many revisions to the original draft of the manual were incorporated in that period. However, there were sufficient problems in a variety of areas to make a final meeting of the committee necessary.

The committee members present were as follows: Australia: Judy McQueen (NLA); Canada: Vivien Cartmell (NMC - Secretariat); Tom Delsey (NLC); Pierre Lépine (ACML); Velma Parker (NMC - Secretariat); Hugo Stibbe (NMC); Joan Winearls (ACML); Great Britain: Roger Fairclough (BCS & LA); Sarah Tyacke (BL); United States: David Carrington (L.C. - meeting Chairman); Barbara Christy (L.C. - Secretary); Myrna Fleming (WAML); Richard Fox (L.C. Observer); Mary Larsgaard (SLA & ALA); Minnie Modelski (L.C. - Observer); John Schroeder (L.C.); Ben Tucker (L.C.). Representatives from New Zealand were unfortunately unable to attend. Official minutes of the meeting will be issued by the Library of Congress who acted as the secretariat for the meeting.

The meeting went very smoothly. The members had been forewarned that no major new additions or rewriting of material could be considered if the manual was to be published on schedule. All proposed amendments were therefore to represent only slight revisions, additions, or deletions and were to be in written form. The committee then proceeded to go through the manual section by section accepting, rejecting, or changing proposed amendments. Most of the proposed revisions were submitted by the Library of Congress and by the British delegation. Despite some fears early in the week that the work would not be completed, the committee was able to cover all sections; the consensus was that the meeting was very successful and that the preparation of the final text was on schedule. A special vote of thanks was given to the Canadian Secretariat for the work that it had done and for being able to keep up with the changes during the meeting.

The group started with Appendix A, a lengthy section entitled "Guidelines for Choice of Access Points." It was agreed that because it was very long and because this manual is mainly concerned with descriptive cataloguing that the appendix as it stood should be deleted and that Ben Tucker's brief submission with respect to AACR 2 rule 21. 1B2 (corporate main entry for maps) be accepted. The proposal which will go forward to the Joint Steering Committee (JSC) called for a new category (f) under 21. 1B2 allowing corporate main entry for "cartographic materials for which a corporate body is responsible for the intellectual content, design, and creation of the material."

The applications in this section simply instruct the cataloguer to consider

first if a main entry is possible under personal author and, if not, to enter under corporate body. If neither entry is applicable, enter under title.

Appendix B (Scale) was left as is with a few corrections and the adoption of Pierre Lépine's simpler example for the calculation of scale from the graticule. Appendix C (Date) was more thoroughly revised, the first part being deleted and the examples moved to the section on notes.

Appendix D (Definition of Series) was considered by many committee members to have problems and rather than have it deleted, it was referred to a subcommittee (R. Fairclough, M. Fleming, M. Larsgaard, S. Tyacke, J. Winearls) which rewrote it during the course of the meeting. The main concepts of the original text were retained but the use of terms and rigid definitions for certain types of series was dropped. The definition of contiguous-area map series (e.g. most topographic series) was specifically retained but other series were described and placed along a continuum between monographic-type series and true serials. The difference between a multi-sheet map and a series was again stressed as in the original.

The committee then turned to the beginning of the manual for an analysis of the rules, section by section. One of the most valuable contributions was a large number of cartographic examples supplied by L.C. to replace the non-map examples in the text; many of these were for the title area. L.C. also supplied a set of full examples for Appendix E.

In the title area, revised guidelines for choice of title, where there is more than one (1B8), were accepted; these indicate an order of preference by location for the selection of title proper where all titles have the same comprehensiveness. A new application to rule 1G2 and 1G3 regarding items lacking a collective title instructs cataloguers to apply this in the case of several maps on one sheet as well as a group of maps and gives more detailed guidelines for handling this problem.

With regard to the mathematical data area the Library of Congress announced that as a policy it would not on a regular basis determine scale by comparison with other maps of known scale as they found this economically infeasible. At the same time, they proposed an application to allow the use of "scale not given" in many of these cases. This is contrary to AACR 2 in which scale is compulsory for all maps (except for those few cases where scale is indeterminable) and will affect all users of L.C. source records. The British and Canadian delegates expressed their concern over this position as scale is bibliographically such an important part of a map. The proposed revision was not accepted.

A useful new application for rule 4F7, which pertains to methods for determining publication date if not found on the map, was contributed by L.C. This includes sources which can be used such as date in title or edition, date in printing or publisher's code, and some dates of information. There is also a note describing dates that should not be used such as date of magnetic declination.

In the area of physical description, the new short list of SMDs was approved and will be taken to JSC by Ben Tucker for a proposed revision to AACR 2. There were several excellent revisions proposed by L.C. in this area which will serve to simplify many applications which were too convoluted and

unclear. Another useful simplification was that "method of reproduction" of a map in the physical description area (5C1) was more or less limited to the terms "manuscript" and "photocopy"; other terms are to go in notes. There were also many helpful revisions in the note area, again based largely on L.C.'s considerable map cataloguing experience.

Chapters 13 "Analysis" and 14 "Cataloguing Map Series" were considered together as the British proposed combining the two and doing some extensive rewriting. After considerable discussion on the nature of map series from a cataloguing point of view and some comments by cataloguing experts it was agreed to leave the sections separate although Chapter 14 was transferred to the appendix (App.E). Briefly, the experts pointed out that map series fall into both monograph and serial types and that the ramifications of handling these must be understood. Contiguous-area map series can be viewed as multi-part items because sheet coverage is finite and there is only the possibility of multiple editions of individual sheets. This places them in the monograph area. Numbered monographic-type series on the other hand are, of course, to be treated as serials with the implications of successive title cataloguing and the use of the serials format. It was agreed that further work would have to be done on series and that an introduction to Appendix E should stress the preliminary nature of the cataloguing provisions.

Basically, the list of four cataloguing methods to be used (description of series as a whole; series as a whole with contents note; separate description with series statement; and multilevel cataloguing) and the description of each method were retained. Added to this was a list of factors affecting choice of cataloguing method and a short statement recommending the use of various methods in different situations.

In the glossary a few new terms were added (atlas factice, ancillary map), a few deleted (early map), and a few revised (main map, component). "Ancillary map" replaces "marginal map" and is a generic term for both insets and small maps outside the neatlines. "Component" was revised to include maps of equal value on one sheet not just on one side of a sheet.

A new short appendix (I) on geographical atlases was submitted by L.C. and approved.

Lastly, the Secretariat handed out a revised Index.

The final discussion was on the future of the committee and its organization. It was generally felt that the committee should continue after the manual was published because of the need to consider revisions and additions and to monitor AACR 2 rule interpretations that would affect it. It was also agreed that the committee could turn to other areas of map cataloguing such as geographical names, author entries, and subject headings. To effect this it was agreed that the committee had to become a more formally organized body.

It was decided to do this in a similar fashion to the Joint Steering Committee for AACR 2; namely, a Memorandum of Agreement between the associations and institutions presently represented. The agreement which will be signed by the associations and institutions is to continue the body known as AACC-CM with the tasks of maintaining and promoting the manual and to undertake other problems relating to bibliographic control of cartographic materials.

For voting matters there will be one vote per institution and one vote per country on the association side. At the same time copyright for all publications of the committee will reside with the associations, allowing one per country. It is proposed that the agreement take effect on January 1, 1982 or upon publication of the manual, whichever is soonest. The Secretariat is to be carried by institutional members on a 2-year rotational basis. The draft memorandum of agreement has gone forward for consideration now (May 1981) by all associations and institutions.

Finally it was the consensus of the meeting that the manual, although not perfect, as a first venture in this area is in fairly good shape, and is well on schedule for publication late this year.

* * *

C. SUMMARY OF THE BIBLIOGRAPHIC CONTROL ROUNDTABLE

*Hugo Stibbe
Panel Chairman and
Chief, Documentation Control Section
National Map Collection
Ottawa, Ontario*

This session was designed to give the participants to the Halifax Conference an update on the state of bibliographic control for cartographic materials in Canada.

Hugo Stibbe, who chaired the round table, introduced the panel members: Ms. Joan Winearls of the Map Library at the University of Toronto and Mr. Pierre Lépine of the Bibliothèque nationale du Québec.

In introducing the first speaker, Pierre Lépine, Hugo Stibbe pointed out that the Bibliothèque nationale du Québec has the distinction of being the first in Canada to have an operational automated system for bibliographic control of their cartographic material holdings. Moreover, it utilizes fully the standards developed over the last two decades: AACR 2 and MARC. Also it will be the first to have a national bibliography for Québec which includes cartographic materials as a direct spin-off product from that automated system. Mr. Lépine and the Bibliothèque nationale du Québec were congratulated for attaining this significant feat.

In his address, Mr. Lépine gave an historic overview of the rapid development of automated data bases containing bibliographic information and the use, now and in the future, of such data bases not only by the professionals who created them but also by the general public who in the near future will be the major users of such data bases in their own homes through networking and connection of such networks to their television sets and home computers.

The data bases considered for home access are the ones we are now creating, utilizing the standards developed in the last two decades. Mr. Lépine went on to say that the time for abandoning our in-house cataloguing standards (which worked fine for our own in-house purposes) is now. The standards developed nationally and internationally are the ones to be used for the data bases he was speaking about. If cartographic materials are to be part of

Mr. Lépine continued his address by explaining how the Bibliothèque nationale du Québec processes its material according to these standards, illustrating it with examples.

He concluded his address with the question: In the 1990s many will expect...access to bibliographic data through terminals in their home. Are we all getting ready for that day?

The second speaker, Ms. Joan Winearls, gave a detailed report of the Washington, D.C., meeting of the Anglo-American Cataloguing Committee for Cartographic Materials, the group that is preparing the manual entitled: "Cartographic materials: A manual of interpretation for AACR 2." She highlighted the more important decisions the committee had made in respect to rule interpretations and the resulting amendments to the applications in the manual. The future of the committee and its organization was discussed at the Washington meeting. To conclude her address Ms. Joan Winearls was happy to announce that the committee had decided to continue its existence on a more formal basis. To effect this, the Secretariat would draft a Memorandum of Agreement which the members would have signed by their organizations.

Hugo Stibbe, the round table chairman, noted that the standards for effective national bibliographic control for cartographic materials have been finalized, a major feat that has taken approximately two decades to accomplish. He handed out information on these published standards, where they are available, and their cost. In addition, he made available the information needed to subscribe to the updating services for these standards.

Hugo Stibbe pointed out that it was now up to the individual map collections to implement these standards and to get on with the work of cataloguing their holdings. He also emphasized that map collections which are part of larger organizations that already are automated or are in the process of automating should join such systems. The nature of computer-network development in Canada and the United States is such that one cannot expect a uniform system to emerge which all collections can join. Rather a multiplicity of networks are emerging, using differing hardware and software. These networks may in the future be inter-connected when the communication-protocol standards for such connections have been worked out.

The remainder of the round table session (approximately 10 minutes) was taken up with questions and answers from the audience.

* * *

BIBLIOGRAPHIC SERVICES OF INTEREST TO MAP LIBRARIES

The following information is provided at this point in the Bulletin because it concerns the availability of published standards for the cataloguing of cartographic materials. The last three papers printed above deal with the matter of standards and stress their vital role in supporting efficient and effective cataloguing practice. The first paper below announces the availability of name authority headings and the second refers to the MARC format for cartographic materials; both were written by Marta Khan, National Library of Canada.

Name Authorities

The National Library of Canada, as part of its mandate to compile and provide access to bilingual data bases of headings and cross references for Canadian authors, has created over the last eight years a machine-readable data base of over 165,000 name authority headings and associated cross references. To serve the needs of Canadian map libraries for access to authority records for name headings relating to cartographic materials, the National Library collaborates with the Public Archives of Canada to include name headings created by the Archives' National Map Collection in the National Library's authority data base. Name headings and cross references established by the National Map Collection are transmitted to the National Library, where they are verified, coded, and input into the data base. To date, some 900 name headings and associated cross references contributed by the National Map Collection have been added to the Canadiana authority data base.

Since 1977/78, these headings have been published in a computer output microfiche (COM) listing called Canadian authorities / Canadiana: Vedettes d'autorité. This authority file is issued quarterly at a reduction ratio of 42:1 and is updated by cumulating biweekly supplements. As each quarterly issue represents a complete regeneration of the base file, subscribers need only check in two places to complete a search: the current base file, and the latest supplement.

Subscriptions to Canadiana authorities may be obtained by writing to:

Canadiana Editorial Division,
Cataloguing Branch,
National Library of Canada,
395 Wellington Street,
Ottawa, Ontario,
K1A 0N4
(819) 997-6200, Ext. 25

Additionally, since 1980, Canadiana authority records including those supplied by the National Map Collection have been available to subscribers in machine-readable form through the National Library's MARC Records Distribution Service (as the CAN/MARC Authorities option).

MARC Format for Cartographic Materials

The Canadian MARC Office of the National Library is responsible for developing and publishing Canadian Machine-Readable Cataloguing (CAN/MARC) formats to facilitate the communication and exchange of machine-readable bibliographic information on Canadian publications. In 1975, the office began a joint endeavour with the National Map Collection to develop and publish a Canadian MARC communication format for cartographic materials. In 1980, this format was issued in the form of an amendment to the Canadian MARC Communication Format: Monographs (3rd edition).

Enquiries about the CAN/MARC: Authorities tape service and the CAN/MARC communication format for cartographic materials may be directed to:

Canadian MARC Office,
National Library of Canada,
395 Wellington Street,
Ottawa, Ontario,
K1A 0N4
(819) 997-6200, Ext. 47

*Marta Khan
Assistant Director (National Services)
Cataloguing Branch
National Library of Canada
Ottawa, Ontario*

* * *

EXCHANGE MATERIAL

DUPLICATE WALL MAPS AT THE UNIVERSITY OF WATERLOO

The University Map & Design Library at the University of Waterloo has a large collection of wall maps (on wooden rods). This collection was reviewed in August 1981 and it was discovered that there were approximately 25 duplicates plus several maps no longer required. A list of these wall maps was printed in the last issue of the Bulletin (page 77 and 78); some of these were subsequently requested by other map libraries but most are still available.

The list of duplicate maps is continued below. These maps are available to any library on the OCUL/Pebuquill I.U.T.S. circuit on a first-come basis. You should be aware that some of the maps require minor repairs; also, many of them were published in Germany (in the German language) in the early 1960s.

If you are interested please write to the following address:

Richard Hugh Pinnell
University Map & Design Library
University of Waterloo
Waterloo, Ontario
N2L 3G1 (519/885-1211, ext. 3412)

World - climate (air pressure, January); 1:30 million; Geiger - Perthes (in German)	213
World - climate (air pressure, July); 1:30 million; Geiger - Perthes (in German)	214
World - population, language, religion; 1:30 million; Wenschow, n.d. (in German)	132
Pictorial chart - Evolution of Life (in German)	269
Pictorial chart - History of Mankind (in German)	268

ASSOCIATION OF CANADIAN MAP LIBRARIES
15TH ANNUAL CONFERENCE
REPORTS

LANDS DIRECTORATE, ENVIRONMENT CANADA

*Wendy Simpson-Lewis
Lands Directorate
Environment Canada, Ottawa*

Thank you for the invitation to participate in the 15th Annual A.C.M.L. Conference. We appreciate the opportunity to meet with you and be informed on new developments in this area of mutual interest.

In preparing for this meeting, I debated how to describe the events of the past year, recent publications, and administrative changes that are part of any bureaucracy. It occurred to me that this week is an anniversary. On June 11, 1971, the Department of the Environment came into being. There have been some very significant changes over the past ten years. In 1971 we carried out programs and research initiated by other departments because we were "constructed" out of pieces of those other departments. Added to the Fisheries and Forestry elements came the Canadian Meteorological Service from the Ministry of Transport; the Air Pollution Control and Public Health Engineering Divisions from National Health and Welfare; the Water Sector from Energy, Mines and Resources; the Canadian Wildlife Service from Indian Affairs and Northern Development; and lastly, the Canada Land Inventory from Regional Economic Expansion. If you think back to the environmental concerns of the day, they centred on air and water pollution. In the Lands Directorate we were primarily involved with mapping the more "stagnant" aspects of our physical environment ... the land. The Canada Land Inventory Program, with its mapping of land capability, exemplifies this.

But to quote Bob Dylan, "the times they are a'changing" and change they did. Today, the emphasis is on the dynamics of the environment ... the processes of change. Today, the land resource is recognized as the most important and complex segment of the environment. What makes it complex are several factors: unlike air and water which we perceive as free or public goods, land is bought and sold like a commodity; land is the object of perhaps more intensive speculation for quick monetary gain than gold. Mistakenly, ownership of land makes us feel we have the right to use or abuse it in any manner we wish; the vast size of our country gives us the misapprehension that land is infinite when in fact high-capability land is very scarce.

One reason that land now receives more attention is related to the trend in environmental issues. Take a typical year, 1979.

- Jan. 5/79 - 40,000 gallon of mine tailings were discharged through a broken pipeline into the Similkameen River near Princeton, B.C.
- Mar. 2/79 - over 200,000 gallon of liquid propane and butane escape from a broken pipeline in a residential area of Edmonton.

- Mar. 15/79 - the Kurdistan spills 1,843,000 gallons of Bunker C oil into the Cabot Strait.
- Mar. 28/79 - the core of a nuclear reactor partially melts down on Three-Mile Island.
- Apr. 1/79 - the remaining section of the Kurdistan is deliberately sunk with over 2,000,000 gallons of Bunker C on board.
- Nov. 10/79 - a 25-car train derailment in Mississauga involved a fire among propane cars and a leaking chlorine tank car. The evacuation of one-quarter of a million people was required.
- Nov. 24/79 - a trailer container containing highly toxic substances was washed overboard and floated around Queen Charlotte Sound in B.C.

Increased awareness and concern for the environment has been brought about partly because of these accidents. Before the Mississauga train derailment not much thought was given to the fact that every day hazardous materials are transported through densely-populated residential areas, that hazardous wastes are too often "disposed of" in land dumps or nearby rivers. The damage done to the land, to its dollar value, to its physical capability, to its aesthetic characteristics, and to other uses which may occur on that land are now a prime concern in environmental matters.

Today, all sectors of the public demand more information about these new issues (and/or we believe they should have more information). For each topic there is a different method of data presentation. Acid rain and hazardous wastes may require a different publication format than soil capability for agriculture. Consequently, some of our series are dormant--the Geographical Papers and wall maps for example--while other more recent designs such as Map Folios and Working Papers are more active. With this in mind, I would like to describe very briefly what has been happening in the Lands Directorate.

1. Canada Land Inventory

This series of reports and maps records the land capability for agriculture, forestry, recreation, wildlife-ungulates, wildlife-waterfowl, sport fish, as well as land use (circa 1965). To date, there have been more than 1,000 capability maps published at various scales. Most are at 1:250,000, with B.C. agriculture and forestry printed at 1:125,000. A series at 1:1,000,000 has been prepared, by province or region, summarizing individual sectors.

The most recent series is the watershed capability for sport fish (at 1:1,000,000). Watershed capabilities are rated using a basic 4-class system, with subclasses denoting limitations. Maps for the Atlantic Provinces and Manitoba have been published; Quebec, Ontario, and Alberta are being drafted. British Columbia, Saskatchewan, P.E.I., and Nfld. did not participate in this series.

2. Map Folio Series

Since our report last year, one new map folio has been produced: Les terres de choix du Canada: une étude sélective de l'utilisation des terres dans une perspective nationale is the companion to Canada's Special Resource Lands. It provides a national overview of critical lands for six major land uses and includes eighty-eight maps and detailed texts. The English edition has been well received and is close to selling out all its 5,000 copies.

Research is continuing for a future map folio, the theme of which is "Stress on Land." Stress is the result of man's activities which have an impact on the land resource, affecting its use, value, or capability. This national overview will address such environmental concerns as nuclear waste disposal, oil spills on coastal and inland areas, construction of airports, landfills, pits and quarries, poor land management practices, and others. The presentation of data will include the combination of maps, diagrams, photos, and detailed texts which characterize this series. It is designed for an audience in education (university and senior high school), land management, and the general public. Publication is expected in late 1982 or early 1983.

3. Northern Land Use Information Series

This program is a co-operative venture between the Lands Directorate, Department of the Environment, and the Northern Affairs Program, Department of Indian and Northern Affairs, and is intended to provide baseline environmental information to facilitate regional planning and application of the Territorial Land Use Regulations.

In the past year, 31 map sheets (scale 1:250,000) have been produced for the Wager Bay-Back Lowland area in the northern Keewatin District, and the research has been completed for 29 map sheets in the northern Baffin Island area. Information collected for this latter area has been included in the Department of Indian and Northern Affairs' ongoing regional planning study (Green Paper) on the future use and management of Lancaster Sound. The L.U.I.S. program will eventually be extended to cover all of Canada north of 60°, with the final maps planned for publication in 1988. The program may also be extended into the northern parts of the provinces as a joint federal-provincial effort. In addition, plans are underway to produce thematic overview maps and reports on the North on such subjects as caribou habitats, conservation areas, and other topics of general interest.

4. Land Use in Canada Series

Reports in this series discuss land-use issues in Canada. They present information concerning the causes and consequences of major land-use problems, with an emphasis on trends and solutions. Since last year, two studies have been published. Report No. 18 is entitled The Land-Use Impacts of Recent Legislation in P.E.I. (Les répercussions des récentes lois de l'I.-P.-E. sur l'utilisation des terres). Evidence suggests that the Land Development Corporation and non-resident land ownership legislation have several significant impacts: 1) to encourage the retention of good farmland in production, 2) to obtain high capability recreation lands for public use, 3) to prevent intensive development of environmentally-sensitive lands, and 4) to help allocate land to its most suitable uses. In this report, cartographic analysis was used to help document the impact of the legislation.

Report No 19 is called Urban Growth, Infrastructure and Land Capability: A Windsor Example (La croissance urbaine, l'infrastructure et les possibilités des terres: L'exemple de Windsor). This paper contends that by planning the location of infrastructure (sewers) in conjunction with land's natural capability, urban growth can be accommodated yet effectively directed away from prime agricultural land. Mapped information from two national data bases are used: 1) CMHC's Land and Infrastructure Mapping Program, and 2) the Canada Land Inventory. The thematic material from these two sources is overlaid using Canada Land Data System (CLDS), a computer system handling land resource information. The ultimate goal is to develop a planning tool which can assist in locating sewers and other services away from prime lands, yet still permit urban growth

5. Working Paper Series

This series replaced the Occasional Paper Series and addresses specific and rather narrow topics within a major research theme. The reports are inexpensive to produce, have a limited press run, appeal to a specific professional or interest group, and are available free of charge.

During the past year, fourteen new papers have been published and they reflect research on a wide variety of topics at several different levels. The titles will give you an idea of the scope of this series:

- No. 4 The Land Impact of Federal Programs in the Cowichan Valley Regional District, B.C. (Incidences des programmes fédéraux sur les terres dans le district régional de la vallée de la Cowichan en Colombie-Britannique).
- No. 5 The Impact on Agricultural Land Use of Federal Policies and Programs in Kings County, N.S. (L'effet sur l'utilisation des terres agricoles des politiques et programmes du gouvernement fédéral, dans le comté de Kings en Nouvelle-Ecosse).
- No. 6 Energy Conservation through Land Use Planning: A Synthesis of Discussions at a Symposium (Conservation de l'énergie par la planification de l'utilisation des terres: Synthèse du symposium).
- No. 7 Assesment Procedures in Canada and Their Use in Agricultural Land Preservation (Procédés d'évaluation au Canada et leur utilisation dans la préservation des terres agricoles).
- No. 8 The Effects on Land Use of Federal Programs in the Windermere Vailey (Les effets des programmes fédéraux sur l'utilisation des terres dans la vallée Windermere).
- No. 9 Issues in Canadian Land Use (Problématique de l'utilisation du sol au Canada).
- No. 10 The Development of an Ecological Sensitivity Rating for Acid Precipitation Impact Assessment (Etablissement d'une échelle de vulnérabilité écologique aux précipitations acides: Etude d'impact).

- No. 11 The Land Use Impact of Small Craft Harbours: A Preliminary Investigation (L'utilisation des terres des ports pour petits bateaux: une étude préliminaire).
- No. 12 Land and the Automobile: A Selected Bibliography (Les terres et l'automobile: Bibliographie sélective).
- No. 13 The Agricultural Use of Marginal Lands: A Review and Bibliography (L'utilisation agricole des terres de faible rendement: Résumé et bibliographie).
- No. 14 Land Use Classification Systems: An Overview (Systèmes de classification de l'utilisation des terres: Aperçu général).
- No. 15 Survey of User Requirement for Land Use Data: Canada Land Use Monitoring Program (Enquête sur les besoins des usagers en matière de données sur l'utilisation des terres: Programme de surveillance de l'utilisation des terres au Canada).
- No. 16 Problems of Mapping Non-productive Woodland Using the CLI Present Land Use Classification in Halifax County, N.S. (Problèmes associés à la cartographie des boisés improductifs utilisant le système de classification de l'utilisation des terres de l'ITC: Région d'Halifax, Nouvelle-Ecosse).
- No. 17 Land Use Classification for Land Use Monitoring (Système de classification pour la surveillance de l'utilisation des terres).

6. Ecological Land Classification Series

The series theme is on the development of approaches to ecological land classification and its application to resource planning, management, and environmental impact assessments. It acts as a vehicle for publishing workshops by the Canada Committee on Ecological Land Classification as well as specific ecological surveys, research reports, and other related work. Reports Nos. 12, 13, and 14 have been published recently. Report No. 12 is the Proceedings of a Workshop on Canadian Wetlands (Compte-rendu d'un atelier sur les terres humides du Canada) and includes wetlands of Canada maps as well as wetland registry forms. Report No. 13 is Ecological Land Survey Guidelines for Environmental Impact Analysis (Directives des relevés écologiques du territoire en vue d'une analyse des incidences environnementales); it is a joint publication of the Lands Directorate and the Federal Environmental Assessment Review office. Report No. 14 Wetlands of Canada (Terres humides du Canada) is a folio of two maps at 1:7,500,000 of wetland regions and distribution of wetlands in Canada. These maps are provisional and comment is invited; subject to modification they will eventually be part of the national atlas.

Two maps of the Northern Yukon have been published, illustrating distinctive ecosystems at 1:1,000,000 and 1:500,000 scales. Descriptive notes and representative colour photographs are included for each map unit. These maps will eventually be included in an Ecological Land Classification report on the Northern Yukon.

7. Miscellaneous Reports

One book, completed last year on contract, is Livre-ressource de la planification de l'environnement, the companion to Environmental Planning Resourcebook. It is a handbook regarding planning and resource problems and is illustrated by ninety-nine case studies.

...for land's sake! (Pour la sauvegarde de nos terres) is a guide to Canada's land resource, its uses and misuses. It is an excellent introduction to, and summary of, land resources in Canada, and is a particularly useful tool in high school courses. A number of useful reference maps are included under these major topics: the natural environment, people and land, and land for the future.

Explore the Fraser Estuary. Through maps, photos, and text, this 100-page booklet stresses the need for a comprehensive management plan which will recognize the significance of the Fraser Estuary for both human activity and ecological purposes.

Ecological Land Classification: Fortress of Louisbourg National Historic Park is a 2-volume report, describing physical and biological characteristics in terms of ecosites, each with particular soil conditions, parent material, and plant communities. It was prepared to assist park site and environmental planning purposes.

Physical Shore-Zone Analysis, Saltspring Island, B.C. analyzes the physical character of the shore-zone as the first step in the development of a suitable data base for coastal zone planning. Analysis is based on oblique and aerial photography and shoreline types are mapped for future planning purposes.

Land Use in Canada: The Report of the Interdepartmental Task Force on Land Use Policy (L'utilisation des terres au Canada: Rapport du groupe de travail interministériel sur la politique de l'utilisation des terres) is the product of input from sixteen federal departments and agencies. It describes Canada's land characteristics, tenure, use, and policies and outlines land-use problems as well as the interest and influence of the federal government in land use. Finally, it provides recommendations for the consideration of the federal government in respect to its activities as they relate to land use.

Lands Directorate Publications (Direction générale des terres - publications) is our latest list of publications, dated March 1981. It describes how to obtain free and priced publications, and complimentary copies are available from any Lands Directorate office.

Lands (Terres) is a quarterly newsletter which focusses on land-use policies, programs, and issues in Canada.

A large number of research projects reached the publication stage during the past year. Consequently, there is not time left to describe a very important section of the Lands Directorate--the Canada Land Data System (CLDS). It has the capability to store, handle, and manipulate large volumes of spatial information. It can produce multi-colour thematic maps at a variety of scales based on input of numerous data sets. It is an exciting tool that can be used to map defoliation caused by the spruce budworm or select the most appropriate site for subdivision sewer construction. If we are invited back next year, we will make it a priority to describe the mapping procedures and outputs of the CLDS.

RECENT ACQUISITIONS

*compiled by Karen Finn
University of Ottawa Map Library
Morisset Library
Ottawa, Ontario*

Contributors: GSC - Geological Survey of Canada Map Library
 UBC - University of British Columbia Library Map Division
 OOU - University of Ottawa Map Library
 UT - University of Toronto Map Library

WORLD - Maps

- OOU World languages. - Ottawa : Commissioner of Official Languages, 1980.
 Verso: English and French in Canada; countries where several languages are spoken; countries of the world where English and French are languages of communication.
 In English and French.
- OOU Carte pour un monde solidaire: carte du monde conforme à la surface réelle projection Peters. - Paris, France : Comité Catholique Contre la Faim et pour le Développement, 1980.
 From: the periodical Faim-développement Dossier 80-11.

AFRICA - Maps

SUDAN

- UBC Democratic Republic of Sudan. - Beirut, Lebanon : Geo-projects, 1980. - Scale 1:4,000,000. Published in association with Oxford University Press.
 Cover-title: The Oxford Map of Sudan.
 On verso: Insets: Khartoum 1:15,000 ; Omdurman 1:50,000.

ASIA - Maps

HONG KONG

- UBC Map of Guangzhou (Canton) ... Hong Kong : [Tung Yung Book Co.], 1980. - [ca 1:18,000].
 Insets: [Canton Area], Scale 1:2,000,000 ; the Zoo ; Yuehsiu Park ; Huanghuakang ; Memorial garden to the Martyrs in the Kwangchow uprising ; Baiyun Mountain ; Cultural Park ; Liuhua Park ; [Subways].
 In English and Chinese.

KOREA

- GSC Geological map of Korea / Seoul, Korea : Korea Research Institute of Geoscience and Mineral Resources, 19 -. - Scale 1:50,000 .
Holdings: Sheet No. 6622 IV; 6722 III; 6723 IV; 6918 III, IV; 6922 II.

EUROPE - Maps

- GSC International hydrogeological map of Europe - Carte hydrogéologique internationale de l'Europe / International Association of Hydrogeologists; with the support of the Commission for the Geological Map of the World. - Hanover : Bundesanstalt für Geowissenschaften und Rohstoffe; Paris : Unesco, 1980. - Scale 1:500,000.
Holdings: Sheet B2.

FRANCE

- OOU Réseau général d'énergie électrique de France Centres Régionaux groupes et sous groupes de transport / France : Electricité de France, 1981. - Scale 1:2,000,000.
Date de mise a jour: 1er janvier, 1981.

NORTH AMERICA - Maps

CANADA

- OOU Wetlands of Canada = Terres Humides du Canada / Ottawa :
UBC Environment Canada, Lands Directorate, 1981. - (Ecological Land Classification Series, No. 14). - Scale 1:7,500,000.
2 maps.
Contents: 1. Distribution of Wetlands. 2. Wetlands regions (Provisional, 1981).
In English and French.

Alberta

- OOU Athabasca Glacier / Ottawa : Environment Canada. - Inland Waters Directorate. Water Resources Branch, 1980. - Scale 1:10,000 (Glacier Map Series No. 8 sheet No. 6).
OOU Saskatchewan Glacier / Ottawa : Environment Canada. - Inland Waters Directorate. Water Resources Branch, 1980. - Scale 1:10,000 (Glacier Map Series No. 8 sheet No. 7).
Report for 2 maps, report series No. 69.

British Columbia

- UBC British Columbia relief map (IJR) / Victoria, British Columbia :
Ministry of the Environment, Surveys and Mapping Branch,
1979. - Scale 1:2,00,000.
Insets: Mean annual precipitation; mean daily temperature,
(°C)-January; mean daily temperature, (°C)-July.
Previous edition 1968 at scale 1:1,900,000 with temperature
(°F).
- UBC Provincial parks of British Columbia /Victoria, British
Columbia : Ministry of Lands, Parks and Housing, Parks
and Outdoor REcreation Division, 1980. - Scale 1:2,500,000.
Insets:[Lower Mainland - Southern Vancouver Island] 1:1,250,000.
On verso: Descriptions and Illustrations of the parks.

Newfoundland

- OOU Surficial Materials, Lake Melville, Newfoundland /Ottawa :
Geological Survey of Canada, 1980. - Scale 1:250,000.
Map 23-1979 Preliminary.

Nova Scotia

- UBC Nova Scotia, Official highway map / Halifax, Nova Scotia :
Ministry of Tourism, Ministry of Transportation, 1981. -
Scale [ca 1:633,600].
Insets: 8 map of cities, various scales.
On verso: Sydney [ca 1:70,000] ; Halifax - Dartmouth ap-
proaches [ca 1:145,000]; Pictou County Region [ca 1:95,000];
Halifax - Dartmouth approaches 1:50,000.

Ontario

- OOU Algonquin Provincial Park Canoe Routes 1980 / Ontario :
Ministry of Natural Resources, 1980. - Scale 1:126,720.
- OOU Quetico Provincial Park / Ontario : Ministry of Natural Re-
sources, 1976.

Prince Edward Island

- UBC Charlottetown, including East Royalty, Parkdale, Sherwood,
Greater Charlottetown Area, including Bunbury, Kinlock,
Southport and West Royalty / Charlottetown, Greater
Charlottetown Area Chamber of Commerce and the Prince
Edward Island Dept. of Tourism, Parks and Conservation,
[198-]. - Scale [cs 1:18,000] and [ca 1:47,000].
2 maps on 1 sheet.

Saskatchewan

- UBC Saskatchewan Official Highway Map / Regina, Saskatchewan
Highways and Transportation, 1981. - Scale [ca 1:360,000].
Insets: Main highway networks for 12 urban areas.

Yukon

- OOU Ecodistricts of the Northern Yukon / by E.B. Wiker ... [et al.].
 UBC - Ottawa : Environment Canada. Lands Directorate Environmental
 Conservation Service, 1981. - Scale 1:500,000 and 1:1,000,000.
 Ecodistricts delineated on the 1:1,000,000 scale. Colour
 Landsat mosaic and on a 1:500,000 topographic map; photograph,
 brief description and extended data legend for each unit.
 Printed on both sides of sheet.

UNITED STATES

- GSC Wilderness review : proposed initial inventory recommendation /
 [Washington], D.C. : Bureau of Land Management. Lake States
 Office, 1980. - Scale 1:1,000,000.

California

- OOU Geothermal Resources of California / map produced by the National
 Geophysical and Solar-terrestrial Data Center, NOAA, for the
 Division of Geothermal Energy. U.S. Dept. of Energy (Geology
 Data Map No. 4 Series, No. 4 1980). - Scale 1:750,000.

Idaho

- UBC Energy exploration in the phosphate region of S.E. Idaho /
 Boise, Idaho : Office of Energy, 1980. Scale 1:1,000,000.
 4 maps on 1 sheet.
 Contents: geothermal leases; exploration wells and energy
 transmission corridors; oil and gas leases; phosphate leases.

Washington-Oregon

- UBC Mount St. Helens and Vicinity, Washington-Oregon / Reston,
 OOU Virginia : U.S. Geological Survey, 1981. - Scale 1:100,000.

Puerto Rico

- OOU Relief map of Puerto Rico showing principal physiographic
 provinces. - U.S. Geological Survey, 1980.
 1 map and Geological Survey report paper No. 1159.

SOUTH AMERICA - Maps

- GSC América Latina : Mapa General de Transportes / preparado por
 el Comité de Cartas Especiales, Comision ed Cartografia,
 Instituto Panamericano de Geografia e Historia. Mexico,
 1970. - Scale 1:5,000,000, preliminary edition.

ARGENTINA

- OOU Republica Argentina / Argentino Instituto Geografico Militar, 1979. - Scale 1:2,500,000.
1 map in 2 sheets.

MEXICO

- UBC Ecoplan del estado de Sonora, plano de niveles de proteccion y usos recomendaloles del suelo / [Hermosillo], Secretaria de Asentamientos Humanos y Obras Publicas, 1981. - Scale [ca 1:1,310,000].

MIDDLE EAST - Maps

- GSC Sinai Geological Photomap / by Y. Barton ... [et al.] /
UBC Jerusalem : Geological Survey of Israel, 1980. - Scale 1:500,000.
- GSC Sinai Geological Map : Aeromagnetic Map / by M. Eyal ...
[et al.] / Jerusalem : Geological Survey of Israel, 1980.
- Scale 1:500,000.

SAUDI ARABIA

- GSC [Geological quadrangle maps of the Kingdom of Saudi Arabia] /
Jiddah : Saudi Arabia Directorate General of Mineral Resources, 19- . - Scale 1:250,000.
Holdings: GM32 Alhith quadrangle sheet 20/40C, GM33 Jabal Afaf quadrangle, sheet 20/40D.
- UBC Damman, Al Khobar and Dharam / Stanford, Conn. : Middle East Information Co., 1980. - Scale 1:45,000 (MEIC-5-SM04M).

WORLD - Atlases

- OOU Geological World Atlas / Unesco : Commission for the Geological Map of the World. - Scale 1:10,000,000.
24 loose sheets.
- UBC World Atlas of Geomorphic Features / Rodman Z. Snead. -
Huntingdon, N.Y. : Kreiger Van Nostrand Reinhold, 1980.
IX, 301 p. : col. ill. ; col. maps, 21 cm.
- UT World Atlas of Seismic Zones and Nuclear Power Plants / [Novco, California] : Wyle Laboratories, Scientific Services and System Group, 1978.
[12] p. : chiefly ill. ; 28 cm.

OCEANS - Atlases

Climatic Atlas of the Indian Ocean / [by] Stefan Hastenrath and Peter J. Lamb. - University of Wisconsin Press, 1979. Part I Surface Circulation and atmospheric circulation. Part II the Oceanic heat budget. Atlas in 2 volumes.

EUROPE - Atlases

BRITAIN

UBC Rail Atlas of Britain / Stuart K. Baker. - Oxford : Oxford Publishing Co., 1980. - 3rd ed.

NORTH AMERICA - Atlases

UNITED STATES

Massachusetts

UT Cape Cod Environmental Atlas / Arthur H. Brownlow, editor. - [Boston] : Dept. of Geology, Boston University, c1979. xii, 62 p., [10] fold. leaves of plates : ill., maps, 28 cm.

AFRICA - Atlases

CAMEROONS

UT Atlas de la République Unie du Cameroun / sous la direction de Georges Laclavère; introduction de Jean-Félix Loung. - Paris : Editions J., 1979. - (Les Atlas Jeune Afrique). 72 p. : cartes en coul.

CENTRAL AMERICA - Atlases

OOU Atlas of Central America / Stanley A. Arbingast ... [et al.]. - Austin, Texas : University of Texas. Bureau of Business Research, 1979.

SOUTH AMERICA - Atlases

ECUADOR

OOU Atlas geografico de la Republica del Ecuador / Instituto Geografico Militar, [1977].

AUSTRALIA - Atlases

- OOU Western Australia : An Atlas of Human Endeavour 1829-1979. -
Western Australia : Dept. of Education, Dept. of Lands and
Surveys, 1979.

MONOGRAPHS

- UT The emergence of maps in libraries / by Walter W. Ristow. -
OOU Hamden, Conn. : Linnet Books, 1980.
- UBC Royal Geographical Society History of Exploration, 1830-1980.
OOU - London : Royal Geographical Society, 1980.
Includes map. Scale 1:34,500,000
- OOU Guides to Official Mapping : Canada / by Norman Nicholson and
Lou M. Sebert. - Folkestone : Dawson, 1981.

INDEXES

- OOU Publications of the Geological Survey, 1879-1961. Alexandria,
Virginia : U.S. Geological Survey, 1980.
- Publications of the Geological Survey, 1962-1970. Alexandria,
Virginia : U.S. Geological Survey, 1980.
- Publications of the Geological Survey. 1971-1979. Alexandria,
Virginia : U.S. Geological Survey, 1980.
- UBC Index to bedrock geological mapping, British Columbia. Victoria,
B.C. : Ministry of Energy, Mines and Petroleum Resources,
Mineral Resources Branch, Geological Division, 1980.

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REVIEWS

The New International Atlas = Der Neue Internationale Atlas = El Nuevo Atlas Internacional = Le Nouvel Atlas International = O Nôvo Atlas Internacional. Chicago, New York, San Francisco: Rand McNally & Company, c. 1980. xvii, 320p., 232p. index. \$77.95 Can.

The New International Atlas, as one would expect, is not so much a new atlas (as claimed by the editors) but a revised edition of the Rand McNally The International Atlas, first issued in 1969. The prefaces, for example, are virtually identical, and ironically the preface to the 1980 atlas refers to itself as The International Atlas, the title of the earlier edition.

The atlas continues to follow a regional organizational pattern, with maps in five series. The first series presents the continents in colour, as they would appear from a bird's-eye view, about 4,000 miles in space. The next series of political maps at 1:12,000,000 portrays the major world regions, emphasizing administrative boundaries and place and feature names, overlaid on a shaded-relief base. The relief base is much more dominant in The New International Atlas (changed from a light grey to shades of beige), and although it tends to overwhelm the print in some mountainous areas, where dark beiges are necessary, the presentation of relief is much more effective than in the earlier editions.

The third series, concentrating on the inhabited areas of the earth at larger scales, also presents physical and cultural detail, but on a base of muted hypsometric tints and relief shading. The colours in this series seem to be lighter and brighter than in the previous edition, making the series easier to read and visually more attractive.

The fourth series, at 1:1,000,000, covers key regions of the continents in a style similar to the second series; the last group of maps focuses on the world's major urban areas. The latter group is somewhat disappointing because it does not appear to have been substantially revised. A case in point, close to home, is the east boundary of Metro Tronto which is still incorrectly aligned even though the boundary changed in the early 1970s. Also, it is very hard to discern any growth in most of cities although the urbanization process has been very dramatic in the last half-decade.

One important change in the atlas is that it is now in five languages, Portuguese having been added to English, German, Spanish and French. The atlas has kept its tremendously useful, multilingual glossary of geographical terms, which can also be consulted when studying other atlases and maps in the above languages.

There are only a few "new sheets" in the atlas. For example, the islands of Sardinia and Sicily are each given full page coverage, and coverage of the United Kingdom has been expanded.

There has been extensive revision of geographical names and administrative boundaries; for example, South West Africa is now indicated as Namibia. These additions and corrections to the main map series are supplemented by tables of name changes, territorial transfers, new man-made features, and internal administrative changes.

"The World Scene", a section on world thematic maps, and the "World Information and Population Tables" have also been systematically updated to reflect new census data, data from United Nations' yearbooks, and many other sources. The first thematic map, "The World May 1, 1980," is more current than any single sheet map yet received. A comparison of the plates on energy production and consumption in the two atlases reveals the increases of crude petroleum production in Iraq, Mexico, and Saudi Arabia, for example, and illustrates increasing diversification in the world's use of various types of energy. Statistics on mineral production, fishing, GNP, and international trade have all been revised.

Although population statistics range from 1958 for China, to 1978 for the United Kingdom, the data in the "Population Table" is based primarily on mid-decade censuses and official estimates for the last half of the 1970s.

The New International Atlas provides up-to-date physical and cultural maps and data for all countries of the world. It is especially useful when this edition can be compared with older editions to trace changing world patterns over time. As a multilingual gazetteer and geographical dictionary, it will be of considerable value to small libraries in the interpretation of the foreign maps in their collections. This atlas can be recommended for all libraries as a high quality, multipurpose, general reference atlas, and should prove to be of great value to librarians and patrons alike.

*Mary Armstrong
Map Library
John P. Robarts Library
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* * *

Camponi, Linda. Maps of Indian Reserves and Settlements in the National Map Collection, Vol. I: British Columbia. Ottawa: National Map Collection, Public Archives of Canada, 1980. 157p. 29 maps. ISBN 0-622-50525-5. Free.

This first volume in a series on the holdings of the National Map Collection lists maps and plans of Indian reserves and settlements in British Columbia. It is significant in two important respects. It is the precursor of similar treatments of the same subject for other parts of Canada. Secondly, it represents almost two-thirds of the Indian lands in Canada. Considering that about one out of eight Canadian citizens is Indian, registered by definition in the Indian Act, and that there are many more without this status but of Indian descent, it is understandable why so much interest in Indian lands is evident. Add to this the large amount of current interest from people such as historians, scholars, genealogists, and researchers and it makes this timely publication very welcome since maps and plans are a vital, if not always recognised, source of historical information.

Not really a finding aid and only partially a research tool, it does not pretend to be much more than a listing. Consequently, it must be considered only in this light rather than as a definitive work on the subject. It is likely that only when it is used in conjunction with other sources of information will its full capability and usefulness be apparent.

About half the items listed form part of the records of the Central Registry System of the Federal Department of Indian Affairs. Others are Indian Lands Sales maps and Indian Affairs Survey Records plans. But there are many other sources which should be known to users. For example, the British Columbia Ministry of Lands, Parks and Housing holds numerous plans for Indian reserves in that province, in addition to the listings in Volume 1. The B.C. Government reference mapping, of which there are several hundred sheets, shows virtually all the existing reserves. Both the federal and provincial archives have manuscript material, some of which contains maps and sketches, but which should not be overlooked.

Volume 1 lists the maps and plans of Indian reserves by name generally, otherwise under agency name. The entries are arranged chronologically over a time span of two centuries from Alexander Henry's 1775 map showing locations of Indian tribes, to a 1977 ARDA map. Alternative names and their spellings are also given and are cross referenced. Where several names appear on one map, the title is listed only under one reserve or agency name. An examination of the illustrated maps suggests that much of the material listed would be useful for researchers for other than Indian matters. Locations of Hudson's Bay Company forts, the existence of roads and trails, places and the spellings of names, as well as excellent examples of surveyors' work, conjures a host of possible uses and at the same time generates even more interest in the contents.

Although the compilers are aware that there are numerous other sources of information relating to Indian reserves and settlements, such as township plans, sectional maps, National Topographic maps and B.C. Provincial series maps and which cannot be listed individually, it would be appropriate to make passing reference, particularly to B.C. sources, so that the user will know where to go for further information. No specific mention was made of the Legal Surveys Division, Survey and Land Records at Victoria, B.C., a major source of information on Indian lands.

But the main thought remaining after reading this catalogue of Indian lands is one devoid of criticism--namely, that it is an outstanding example of what other institutions might do to shake the dust off their cartographic holdings and to make them known to the outside world.

*Geoff Castle
Archivist, Map Collection
B.C. Provincial Archives
Victoria, B.C.*

* * *

Ristow, Walter W. The Emergence of Maps in Libraries. Hamden, Conn.: Shoestring Press (Linnet Books), 1980. 358 p. ISBN 0-7201-1620-1. \$27.50 U.S.

In 1978 Walter W. Ristow retired as chief of the Geography and Map Division of the Library of Congress after a distinguished career in that institution lasting thirty-one years. He had begun his career as a map librarian some nine years earlier in the map room of the New York Public Library. He has thus been involved with maps and map collections for over forty years and his professional career coincides with much of the period aptly described by the title of this book, The Emergence of Maps in Libraries.

"There weren't many experienced hands to turn to in 1937," writes Ristow. Yet by the time he retired his profession had become institutionalized to a considerable degree with its own recognized pioneers, national and international associations, journals, reference works, and specialized training in a developing body of knowledge and skills.

Dr. Ristow was in the thick of this development, and this collection of thirty-five of his articles is a witness to his involvement, as well as a rich source of information about the concerns and achievements in map librarianship over several decades. I doubt if any aspect of map librarianship has escaped his notice. The articles were culled from a variety of professional journals in the fields of geography, cartography, and librarianship. About half were written during the last decade; the earliest was published in 1939.

A strong flavour of the changing times comes across in these pieces. In the 1939 article on reference service Dr. Ristow wrote, "An aftermath of boundary changes and attendant persecutions is noted in the number of exiles who are consulting maps of the United States and seeking information about certain regions preliminary to establishing new homes...." In the mid-forties he wrote of the map queries generated by the global war which expanded the average person's geographic horizons immeasurably. The articles written in more recent decades chronicle the complex situation with which we are all familiar, wherein more thoroughly prepared people are required for the intelligent, up-to-date physical and bibliographical control of mushrooming collections.

There is a certain amount of repetition in these articles which could hardly have been avoided given the nature of the collection. An index would certainly have increased the usefulness of the book, for this is not a book that one would read right through; rather it invites consultation by topic.

Now that his writings on the more practical aspects of map librarianship have been collected and published, I, for one, would like to read more from Dr. Ristow about maps and the scholarly side of his interests as suggested in a few of the collected articles. I particularly enjoyed "Philip Lee Phillips, Cartobibliographer," despite the irritation of meeting PHILLIPS in capital letters throughout, but not consistently so.

In appearance, this is a very plain book indeed, and it contains some typographical errors and inelegancies.

In sum, a worthy book, but not thoroughly fascinating reading.

*Aileen Desbarats
Map Librarian
Morisset Library
University of Ottawa
Ottawa, Ontario*

* * *

Treude, Mai. Windows to the Past: A Bibliography of Minnesota County Atlases. Minneapolis: Centre for Urban and Regional Affairs, University of Minnesota, 1980. ix, 187p. paperback. Single copies free.

The purpose of this bibliography, as defined by the author, is to provide "knowledge and information about the existence and availability of Minnesota county atlases." Mai Treude has successfully met her objective in the compilation and publication of this attractive and useful union list, which notes the location of county atlases in public libraries, universities, colleges, and historical societies throughout Minnesota.

The lengthy introduction to the volume discusses the influence of the American Rectangular Land Survey system, and provides information concerning the purpose and use of the county atlas, and a history of county-atlas publishing in the United States and in Minnesota. A significant point stressed in the introduction is that the production of county atlases is a profit-making enterprise, and thus, the most heavily populated areas will be more often mapped. This point is illustrated by a map of Minnesota, which indicates the number of atlases published for each county as of 1979.

The introduction is profusely illustrated with good-quality reproductions, including seventeen pages entitled "A sampling of illustrations and information from old and new county atlases." The author has also provided several very useful tables, maps, and graphs prepared especially for this publication; in addition to the map referred to earlier, a bar graph of "county atlas publishing in Minnesota by decade" and a table of "types of information found in county atlases published during the last decade" are two especially helpful additions to the text.

To many map curators, the term "county atlases" invokes the image of late nineteenth-century volumes (or of the facsimiles of these produced in large numbers during the 1970s). Of the 754 titles in Mai Treude's bibliography, only seven percent are nineteenth-century. In fact, there has been astonishing growth of county atlas production in Minnesota during the last three decades. Undoubtedly, the local historian and the genealogist of the twenty-first century will find these twentieth-century productions as useful as those of the nineteenth century to such current researchers.

In the bibliography section, the entries are arranged alphabetically by county, then chronologically by name of publisher, number of pages, volume size, scale of maps, indication of colour, and brief notes. At the end of each entry, codes appear referring to the institutions holding copies of the atlas described.

The attractive cover design of Windows to the Past uses illustrations from an 1874 atlas. My only negative criticism is that the binding is not sturdy enough for a volume which will be used extensively in Minnesota libraries; in fact, the review copy arrived with several small tears on the spine.

Mai Treude is to be congratulated for a fine work. For Canadian map curators, the bibliography is a reminder that the work commenced in the 1970 County Atlases of Canada: A Descriptive Catalogue (Ottawa: Public Archives of Canada) should be continued and updated into a union list.

*Betty Kidd
Director, National Map Collection
Public Archives of Canada
Ottawa, Ontario*

Americas 1:250,000. Mexico, D.F.: Comision de Cartografia del I.P.G.H., 1980-. \$2.25 U.S. per sheet. Brochure and subscription orders to: Comision de Cartografia, Instituto Panamericano de Geografia e Historia, San Antonio Abad 124, 5.Piso, Mexico 8, D.F., Mexico.

The first map of the 1:250,000 Americas series, Guadalajara, Mexico, NF 13-12, was published in December 1980. This international mapping program was initiated by the Pan American Institute of Geography and History and has been three years in the planning stage, most of which time was spent in drafting the specifications and getting them accepted by the member states of PAIGH, who will be preparing the maps. If the standard set by this first sheet is maintained, it will be a most elegant series indeed.

Like the Canadian 1:250,000 series, the Americas maps cover one degree of latitude and two degrees of longitude. Due to the low latitude of Guadalajara (20° 31' N) this sheet is considerably wider than its Canadian counterparts, and measures 83 cm between neatlines. However the east and west margins of sheets of the Americas Series are text-free, and by trimming to within 1 cm of the border the designers have kept the map from being awkwardly wide. The International Map of the World sheet numbering is used for this series, so in this respect it resembles the Canadian JOG Series at 1:250,000.

The map is quadrilingual insofar as the marginal data is concerned but is entirely in Spanish within the neatlines. This is of very little disadvantage to the non-Spanish reader as an extensive list of conventional signs is included in the margin. On the face of the map, symbols are used as much as possible to avoid labels.

There are certain elegant refinements on this map that would be nice to see on Canadian maps but have been considered too expensive by the Canadian authorities. This reviewer has always preferred the sharp definition given by cased roads. The Guadalajara sheet uses road casings which, in addition to improving the appearance of the map, illustrate the excellent colour registration achieved by the printers over a very large map. Road destinations are shown in the border in red lettering which contrasts well with railway destinations, which are in black. Yellow is used to show the built-up areas, and this allows the depiction of through-highways in cities and towns to be shown by thin red lines (0.25 mm) which show up well on the yellow background.

Six types of vegetation are distinguished in this series; namely, woods, plantations, tropical grass, mangrove, nipa, and brushwood (mato). Our single classification of forest seems either austere or unenlightened depending on one's point of view.

This map carries a 100-metre contour interval, and advertises in the margin that a 50-metre supplementary contour will be used as necessary. Despite some very flat country to the east of Laguna de Chapala, there is no evidence of a supplementary contour on this sheet. It would appear that this series will follow the European custom in using a single interval as much as possible, with the supplementary being used only where very extensive flat areas are encountered. One must congratulate the designers for resisting the American influence in the orientation of the contour numbers. On this series, as on maps of most other countries except the U.S., the contour numbers are placed with the top of the number uphill.

There is a good selection of road classes, and the inclusion of road distances between marks (red stars) will make the maps of this series very useful as road maps. The label "agua puerca" (filthy water) will also help tourists, though in deference to the good people in the Guadalajara area only one such notice appears on this map. Railways are prominently depicted with the usual four designations: single track or multiple track, standard gauge or narrow gauge. As with highways, the distances between marks (black stars) are given. This information would seem to be of little interest to most map users.

The anticipated principal use of the maps of this series has been set out by PAIGH in the following terms:

This program should contribute to future hemispheric development by providing a common topographic reference. The scale of 1:250,000 is consistent with the depth of information available from earth resource satellite imagery as well as being the scale most generally required for the study of national development projects.

Taken all in all, this first sheet is an excellent example of medium-scale topographic mapping. If the remainder of the sheets of the series are of comparable quality, the series should fulfill the above stated aim. In particular, the publishers of the Guadalajara sheet, DETENAL of 124 San Antonio Abad, Mexico 8, D.F., are to be congratulated.

*L.M. Sebert
Surveys and Mapping Branch
Energy, Mines and Resources, Canada
Ottawa, Ontario*

* * *

REGIONAL REPORTS

BRITISH COLUMBIA

OUTDOOR RECREATION MAPS OF BRITISH COLUMBIA

This is a new series of maps published by the Outdoor Recreation Council of British Columbia. The base map is the B.C. Provincial Government's 1:100,000 series in full colour. Added to this base is recreation information about trails, historic sites, services, facilities, etc. marked with clear white on black symbols. The provision of useful information is thorough and includes, for instance, telephones and first aid under "Services." On the verso is text, giving a detailed description of recreation in the area, and a short bibliography of books and maps.

The areas that have been covered so far are Whistler/Garibaldi Region, Windermere Lake Region and 100 Mile House Region. The maps are being marketed through bookstores but can be obtained from the publisher at 1200 Hornby Street, Vancouver, B.C. V6Z 2E2 at \$3.95 a copy.

GEOGRAPHIA DATE CODES

Did you ever wonder how to date those Geographia town plans? For those of you who have not already discovered the secret, the code work is CUMBERLAND.

At the bottom left hand corner of each map (usually) are some letters. If you substitute 1 2 3 4 5 6 7 8 9 0 for letters of the word CUMBERLAND, you have the month and year the map was published. For instance, L. BR means the map was published in the 7th month of (19)46. Neat, isn't it! Once you know how.

NEWS FROM U.B.C.

Frances Woodward of the Specials Collections Division is giving a talk on Cartographic Archives at the American Cartographic Association Conference in San Francisco in September.

*Maureen Wilson
Head, Map Division, Library
University of British Columbia
Vancouver, British Columbia*

* * *

NEWS FROM SIMON FRASER UNIVERSITY

Tony Power, a recent graduate from the U.B.C. Library School is now working seventeen hours a week in the Map Collection and service has been increased to fifty-five hours per week over six days. The collection remains reasonably steady despite budget problems and I am attempting to whip up more enthusiasm for the Map Collection by means of increased coverage of the Map Room and its catalogues in the general orientation offered to new students. In addition, a special session on the Map Room and its resources is being planned for October.

*Jack Corse
Geography and Map Librarian
Map Collection, University Library
Simon Fraser University
Burnaby, British Columbia*

* * *

NEWS AND COMMUNICATIONS

HISTORY OF THE 1:50,000 SERIES AVAILABLE ON MICROFICHE

The more than 8,000 history cards prepared by the Topographical Survey Division, Surveys and Mapping Branch, Department of Energy, Mines and Resources for each sheet of the 1:50,000 (including the 1:63,360) series of the National Topographic System of Canada, published up to January 31, 1981, have recently been microfilmed. A microfiche set of these cards will be available for purchase by interested map collections.

The information for each edition of each sheet gives the date and scale of the aerial photography used, the date of the fieldwork, the type of photogrammetric plotter used in the compilation, and much other detail. The introductory material, glossary, etc. is in both French and English.

Information regarding purchases may be obtained from the National Map Collection, Public Archives of Canada, 395 Wellington Street, Ottawa, Ontario K1A 0N3.

Lou Sebert

* * *

CORRECTION TO PETCHENIK ARTICLE

The opening sentence of Barbara Petchenik's article, "Spatial Knowledge in the Future: Perspectives From the Past," in A.C.M.L. Bulletin, no. 37, pp. 1-6, should begin: "The formation of a new Cartographic Information Society ..." (rather than: "The information of a new ..."). The Bulletin regrets this error.

* * *

ANTIQUÉ MAP CALENDAR/CALENDRIER DE CARTES ANCIENNES

In order to celebrate the 75th anniversary of the National Map Collection, the Public Archives of Canada has published a commemorative cartographic calendar. This 1982 calendar contains colour reproductions of fourteen original maps from the rich holdings of the NMC in Ottawa. Examples of two of the reproductions include Visscher's world map of 1652 and Coronelli's 1688 map of western New France. It is available from Supply and Services, Canada, for \$6.95. (Catalogue no. SA2-119/1980; ISBN 0-920-668-14-3)

* * *

REPORT ON THE ICA TEACHING SEMINARS IN THIRD-WORLD COUNTRIES

During its 5th General Assembly in Moscow in 1976, the International Cartographic Association, realising its responsibility for the promotion of cartography in developing countries, adopted the so-called "Third-World Policy." This resolution resulted in the organization of a series of ICA seminars in overseas countries on specific subjects as requested by the host countries themselves.

The first one was held in Nairobi, Kenya, in November 1978, the second in Jakarta, in September 1980, while the third will be held in Wuhan, China, in October 1981. The programmes of these seminars, which all dealt with various aspects of computer-assisted cartography, were determined by the ITC Commission on Automated Cartography in close cooperation with the host countries. The local infrastructure of each seminar was taken care of by the host country while the lecturers (eight to ten per seminar) were recruited by the ICA from various countries.

The following countries provided lecturers for the Nairobi and Jakarta seminars: Canada 2, France 3, Federal Republic of Germany 5, Kenya 1, Mexico 1, The Netherlands 3, Poland 1, Spain 1, UK 2, and USA 5.

As far as participation is concerned the Nairobi seminar was intended for Africans, the one in Jakarta for those in Southeast Asia, while the seminar in Wuhan will be mainly a Chinese affair. Participants are recruited primarily from the ranks of senior cartographers and decisionmakers. In order to avoid overcrowding and to ensure sufficient room for personal contacts, the number of participants is limited to 100-125 individuals each time.

Further ICA seminars are planned in Rabat, Morocco, in 1982, in Dehra Dun, India, in 1983, both on education in cartography while a third on map production is envisaged in Saudi Arabia in 1983 or 1984. For the preparation of these seminars the ICA Vth General Assembly in Tokyo in 1980 called forth a special committee, the Committee on the Transfer of Technology to the Third-World Countries (CTTTW) which operates under Mr. R. Groot, Canada.

The collective papers presented in Nairobi were published in book form under the title Computer-Assisted Cartography, edited by Prof. L. van Zuylen. This publication is available from the ICA's Sales Agent, Rudolf Muller International Bookshop, Overtoom 487, Amsterdam. Copies of this publication as well as copies of the ICA publication entitled Glossary of Terms in Computer Assisted Cartography, published by ICA Commission IV and edited by Dean Edson were freely distributed to Third-World Seminar participants.

*F.J. Ormeling
President, ICA
Lonnecker, Netherlands
(July 3, 1981)*

* * *

APPEAL FROM THE SECRETARY GENERAL OF THE COMMISSION FOR THE GEOLOGICAL MAP OF THE WORLD

The Commission for the Geological Map of the World has well-established and generally enthusiastic support from scientists contributing to its map projects, but has been unable as yet to build up an efficient and reliable sales network.

Our aim to obtain rapid and world-wide sales coverage encounters a wide gap in communications between the eventual purchaser and the publisher. Though exhibits are organized during scientific meetings and press release copies sent to the major scientific societies for review, the sale of maps over the past years, with one exception, has been disappointingly low.

Poor public response may be in part due to high prices, but the remarkably high price of some books that sell well is commensurate with those of maps that do not sell.

Poor sales might have been caused by use of a non-traditional sales agencies: indeed maps are normally handled by specialized bodies and their publicity reaches the geological fraternity and not that of agencies specialized in, say, adult education.

The two types of potential purchaser (corporate bodies and individuals) respond differently to the price of a map: priced under \$20.00, a map will reach a personal collection; a corporate body may buy costlier maps.

However, despite an article in Bulletin 34 of the A.C.M.L. (March 1980, p. 64) which listed C.G.M.W. maps recently published, to my knowledge not one order has been received as a result. One can take a horse to water, but cannot make him drink....and suggestions for improving our track record would be welcome from members of the A.C.M.L.

*F. Delany
Secretary General, C.G.M.W.
51, Blvd. de Montmorency
75016 Paris, France
(August 22, 1981)*

[Editor's note: In the March 1980 issue of the Bulletin, the following prices were quoted for the C.G.M.W. publication listed below:

Geological World Atlas: 1st batch consisting of 6 maps plus explanatory text -- 650 francs (\$143.00)
Metamorphic Map of Africa (1:10 million) plus text -- 85 francs (\$18.70)].

* * *

NEWS RELEASE: SLA GEOGRAPHY AND MAP DIVISION HONOURS STANLEY STEVENS

The Honours Award for outstanding achievement in map librarianship was first presented in 1955. Nineteen eminent map librarians have been recipients through the years, all in institutions east of the Mississippi. In 1981, for the first time, the award goes to a West Coast map librarian, Stanley D. Stevens, University of California, Santa Cruz.

Mr. Stevens graduated from San Jose State College with a major in political science. He has had further graduate study at San Jose and through University of California extension courses. After employment as a United Nations Secretariat conference officer, as a university library student assistant, and as an office manager for a supply company, he made the plunge into map librarianship, and in fourteen years climbed the ladder at the University of California at Santa Cruz from Library Assistant IV through Assistant Librarian to Associate Librarian in 1979. Meanwhile in 1975 he had been awarded an Outstanding Performance Award by his university library.

The 1981 Honours recipient holds membership in three California historical societies, in the Association of Canadian Map Libraries, in the Map Society of California, and in the American Library Association. He has been active in SLA Geography and Map Division since 1971, but it is the Western Association of Map Libraries in which he has played a most important role and with which he has been most closely linked.

WAML came into being in 1967; Mr. Stevens was its first president, became its apparently permanent treasurer in 1969, and added editorship of its Information Bulletin to his duties in 1971. He almost seems to be "Mr. WAML," but his activities in SLA G & M have also been varied and significant. For example, in 1974 he participated in a panel on Cartographic Journal Publishing at the Toronto conference, speaking on: Whose Journal Is It? Members' or Editor's? He served on the Honours Committee from 1975 to 1977, the second year as chairman. In 1978, in Kansas City, he was moderator for a panel/discussion session on "Automated Map Cataloguing with OCLC." He has served on the Cartographic Users Advisory Committee and its predecessor, Professional Concerns Committee. He was also for a time representative from WAML to the Anglo-American Cataloguing Committee for Cartographic Materials.

As a member of multiple map library associations Mr. Stevens has been concerned for some years with such problems as cooperative action and duplication of functions. In 1978 he was responsible for a survey of WAML members to determine their interest in merging with other associations or continuing in independence. This resulted in a resounding vote of confidence for WAML's separate existence and mission; the Honours recipient, however, continued to participate actively in the map library association identity crisis and to propose the following year a federation of all North American associations concerned with cartographic materials.

It is in the area of research and publications that the 1981 award recipient excels among map librarians. In addition to ten years of editing the WAML Information Bulletin, he has an incredible record since 1970 of forty-three publications already in print, three in press, eight papers presented at meetings, and eleven research and compilation projects undertaken. His publications have included book and map reviews; forewords to books; and articles in color microfilming, maps in local history collections, map collection development, and Lapérouse Pacific maps. They have appeared in WAML Information Bulletin (of course:), Special Libraries, SLA G & M Bulletin, American Cartographer, Drexel Library Quarterly, Surveying and Mapping, and even in England in the Bulletin of the Society of University Cartographers. His survey of the seventy largest cartographic collections of the United States has just appeared in the latest issue of Library Trends, and on June 29 he chaired a panel covering "If you Don't Know Anything About Maps, Come to This Session" at the MAGERT meetings at ALA in San Francisco.

For long years of dedication to the progress of map librarianship, Special Libraries Association Geography and Map Division bestows its Honours Award for 1981 on Stanley David Stevens, with very best wishes for continued success in his chosen field, and with regrets that he was not present to receive his award in person.

The award was announced at the Special Libraries Association Geography and Map Division annual business meeting in Atlanta, Georgia, on June 15, 1981. Members of the Honours Committee for 1981 are Jean M. Ray, Chair (Southern Illinois University at Carbondale), Roman Drazniowsky (University of Wisconsin - Milwaukee), and James A. Flatness (Library of Congress).

*Jean Ray
Map Librarian
Science Division, Morris Library
Southern Illinois University
Carbondale, Illinois*

* * *

ASSOCIATION OF CANADIAN MAP LIBRARIES
1982 ANNUAL MEETING AND CONFERENCE

August 16 - 19, 1982
Ottawa, Ontario

The following description of the 1982 conference is slightly revised from the description given on pages 41-43 of A.C.M.L. Bulletin 39.

Conference theme: The 1982 conference theme is "Map producers and map collections: Perspectives on Co-operation." Papers submitted and/or read do not necessarily have to follow the conference theme.

Call for papers: Participants are hereby invited to submit a paper on the conference theme or any other subject of interest to map librarianship. The Conference Organizing Committee will make every effort to schedule the paper for delivery at the conference. Intent to submit a paper, together with a short abstract, generally no longer than half a typewritten page, at the earliest possible date will increase the probability of delivery at the conference. The A.C.M.L. reserves the right to publish submitted papers in the A.C.M.L. Bulletin.

Exhibits: There will be a major exhibit entitled "Treasures of the National Map Collection" in the Public Archives/National Library building at 395 Wellington Street specially mounted on the occasion of the National Map Collection's 75th Year Anniversary.

Meetings centre(s): Meetings will be held at the Public Archives/National Library building, in a nearby hotel, or at the two universities in Ottawa. In case of dispersed meeting centres, transportation between them as well as between meeting places and hotel(s) may be provided.

Accommodations: Participants may secure accommodation at first, second, or third class hotels as well as in student residences.

Participants: The conference is open without restrictions to all map librarians as well as to any other interested persons.

Registration fees: Registration fees are tentatively set at \$30.00 Can. but will not be more than \$35.00 Can.

Permanent conference address:

Organizing Committee
A.C.M.L. 1982
c/o National Map Collection
Public Archives of Canada
395 Wellington Street
Ottawa, Ontario
Canada
K1A 0N3

Program (including visits): The program includes papers on the conference and/or any other submitted papers; sessions and/or panel discussions on institutionalizing depository arrangements, standardization of marginal information on cartographic materials for the purpose of bibliographic control, and cartographic communication. Possible demonstration of video disc technology applied to the map library environment and Telidon. Possible visit to the Canada Remote Sensing Centre and a layman's introduction to basic design structures of interactive computer systems for bibliography, e.g., DOBIS, MINISIS, UTLAS.

ASSOCIATION DES CARTOTHEQUES CANADIENNES
CONGRES ANNUEL DE 1982

Du 16 au 19 août 1982
Ottawa, Ontario

Thème du congrès: Le congrès 1982 thème: Cartothèques et Cartographes : Regards sur la collaboration. Les exposés soumis ou lus ne doivent pas nécessairement porter sur ce thème.

Présentation d'exposés: Les participants sont invités à présenter un exposé sur le thème du congrès ou sur tout autre sujet susceptible d'intéresser les conservateurs de cartes et plans. Le Comité organisateur fera tout en son possible pour que ces exposés soient prêts pour le congrès. Vous pouvez l'y aider en lui faisant parvenir le plus tôt possible une note indiquant votre intention de présenter un exposé et un court résumé de ce dernier, d'une longueur d'une demi-page, dactylographiée de préférence. L'ACC se réserve le droit de publier les exposés qui lui sont soumis dans son bulletin.

Expositions: Il y aura une importante exposition intitulée "Les trésors de la Collection nationale de cartes et plans" dans l'immeuble des Archives publiques et de la Bibliothèque nationale, situé au 395, rue Wellington. Cette exposition a été spécialement montée à l'occasion du 75^e anniversaire de la Collection nationale de cartes et plans.

Centres de réunions: Les réunions se tiendront dans l'immeuble des Archives publiques et de la Bibliothèque nationale, dans un hôtel avoisinant ou aux deux universités d'Ottawa. Si les centres de réunion sont dispersés, le transport sera assuré entre ces différents centres ainsi qu'entre les lieux de réunion et les hôtels.

Hébergement: Les participants peuvent se loger dans les hôtels de première, de deuxième ou de troisième classe, et dans des résidences d'étudiants.

Participants: Le congrès est ouvert sans restriction à tous les conservateurs de cartes et plans et à toutes les autres personnes intéressées.

Frais d'inscription: Les frais d'inscription sont fixes provisoirement à \$30 (en devises canadiennes), mais ne dépasseront pas \$35.

Adresse permanente du congrès: Comité organisateur
Congrès de 1982 de l'ACC
a/s Collection nationale de cartes et plans
Archives publiques du Canada
395, rue Wellington
Ottawa, Ontario
Canada
K1A 0N3

Téléphone: Indicatif du pays 1
Indicatif régional ou de la zone 613
Numéro: 995-1077

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A BOOK OF BASICS

For Newcomers In Charge of a Small Map Collection

Most members of the A.C.M.L. have at some point in their careers been approached by newcomers to the field in search of information and advice. Often, these newcomers have been given responsibility for a small map collection as but one aspect of their daily work, and they lack the training necessary to help them approach their task. The challenge to trained map librarians is to sift and select from their knowledge and experience just enough information and advice to get these newcomers started at a level of operation consistent with the needs of a small collection--but not to confuse them with too much detail.

In order to facilitate the passing on of this kind of information, the A.C.M.L. decided to produce and publish a guide containing much of the distilled wisdom of its members. Subjects dealt with include such basic issues as the nature of maps themselves, what makes them different from other library materials, and how they are acquired, stored, and used. The operation of a limited reference service is described and simple guidelines for the management of the collection are spelt out.

Copies of A Guide for Small Map Libraries are available at a cost of \$12.50 from:

Association of Canadian Map Libraries
c/o National Map Collection
Public Archives of Canada
395 Wellington Street
Ottawa, Ontario K1A 0N7

GUIDE FOR A SMALL MAP COLLECTION

BARBARA FARRELL
ALFEN DESBARATS

Association of
Canadian Map Libraries

CARTES HISTORIQUES

ASSOCIATION OF CANADIAN MAP LIBRARIES
ASSOCIATION DES CARTOTHEQUEURS CANADIENNES

HISTORICAL MAPS CANADA CARTES HISTORIQUES

1 - 50

OTTAWA
1980

HISTORICAL MAPS PROJECT

The Association of Canadian Map Libraries has published 95 reproductions of historical maps of Canada. Five maps (# 96 - 100) are currently being printed. They will be available for distribution towards the end of July 1982.

A special set of introductory sheets has been produced for the first group of 50 maps. They are printed on the same paper and are of the same size as the facsimile maps. The introductory set consists of the title page (reproduced above); forward; index to maps in order of their publication; list of maps arranged in chronological order; list of authors; and list of sponsors. This set should be of considerable value to librarians and private collectors, who have acquired ACML maps over the last six years. It can be obtained for \$6 (\$5 + \$1 postage) from:

Serge A. Sauer
Chairman, Historical Maps Committee
Map Library, Department of Geography
University of Western Ontario
London, Ontario N6H 3K8

HISTORICAL MAPS